

Dermatology Gone Crazy

Students To Students Notes

As students we went through many trials to re-arrange what we studied in an easy way that helps us as to understand & memorize as much as possible

These trials were time & effort consuming yet they were mandatory for us to study

So we merged all these experiences to re-introduce dermatology in the form of tables and schemes wishing to help you through studying and to save your time and effort

Maybe it's not the perfect way it could be , but it's suitable enough for us as students to study without getting bored and memorize easily without torturing our brains to search for a detail among million alike details there , like lost in the desert without a compass or map or any leading sign 

So consider these notes your helping map through dermatology, complimentary but not substitute for department book

WHO ARE WE ??

6th year ASU Medical Students.

WHAT'S OUR VISION ?

Simply,, to leave useful thing after we pass away which is " علم ينتفع به "

HOW MAKE BEST OUT OF NOTES ?

First : read topic from tables Second : When you need to memorize , so it is " Scheme Time "

Third: Follow it in D.D page Forth : after u study all curriculum 🌐 , revise it in the other way round using collections & areas

We just want to Make medicine "LITTLE"

That's why we are...



VISIT...

LANZAROTE
Caliente.COM

INDEX

Topic	Page
INTRODUCTION	
INDEX & ABBREVIATIONS	
TABLES & SCHEMES SECTION	
➡ Basic Principles	1
➡ Pyogenic skin infections	3
➡ Mycobacterium	6
➡ Viral	9
➡ Parasitic	12
➡ Fungal	14
➡ Allergic	18
➡ Sweat & sebaceous glands	22
➡ Erythematous squamous eruptions	23
➡ Connective tissue diseases	26
➡ Hair	27
➡ Pigmentary disorders	29
➡ Urethritis	30
➡ Syphilis	33
➡ Acquired immune deficiency (AIDS)	36
➡ Infertility	37
➡ Sexology & erectile dysfunction	39
EXTRA SECTION	
⌘ Differential diagnosis	41
⌘ Collections	42
⌘ Lesions according to body areas	44
PRACTICAL SECTION	
➡ Clinical Commentary	45

Abbreviations

ACH	acetylcholine
CCC	Characteristic
CH	Chronic
CT	Connective tissue
cGMP	Cyclic guanosine monophosphate
DT	Due to
DEC.	Decrease
EJC	Ejaculatory
DT	Due to
FAHM	Fever ,anorexia, headache,malaise
FSH	Follicle stimulating hormone
GTP	guanosine triphosphate
GN	Glomerulonephritis
GP	glycoprotein
HTN	hypertension
IP	Incubation period
LL	Lower limb
KOH	Potassium hydroxide
LL	Lower limb
LN	Lymph node
M/C	Most common
MM	Mucous membrane
PDF	Predisposing factor
P/R	Per rectum digital examination
PVD	Peripheral vascular disease
PDF	Predisposing factor
P/R	Per rectum digital examination
STD	Sexually transmitted disease
SSRI	Selective Serotonin reuptake inhibitor
TTT	Treatment
VC	Vasoconstriction
-VE: negative U/S : Ultrasonography ⌘ : MCQ book tricks △ : Mnemonics	

Basic Principles

Bet. dermis & epidermis, BM called **dermo-epidermal junction**

Dermis contain Appendages

3x3 (0.3mm eyelid-3mm back)=**20 paper thickness**

Epidermis Thick back-Thin eyelid =1 paper thickness 4 cells

Stratified squamous epith.(4 layers of keratinocytes) + Other 3 branched cells

Keratinocyte
Main Cell

Langerhans
Ag presenting

Melanocytes
secret melanin

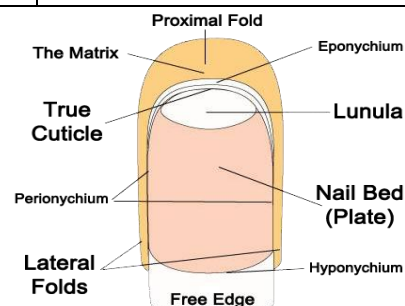
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Basal cell layer = Stratum basale	Prickle cell layer = Stratum Spinosum	Granular layer= Granulosum	Horny cornified= Corneum
1 row	5-7	2-3	-
Columnar	Polygonal	Flat	Flat
Innermost layer <u>It takes 28 days normal</u> <u>To travel to Granular</u>	Connected by Desmosomes <u>4 days in psoriasis</u>	Basophilic granules of dead organelles + no nuclei	- Dead cells - No nuclei - No organelles
Orthokeratosis normal keratinization	Acanthosis ↑Thickness	Parakeratosis ↓ granular layer + pyknotic nuclei	Hyperkeratosis ↑Thickness

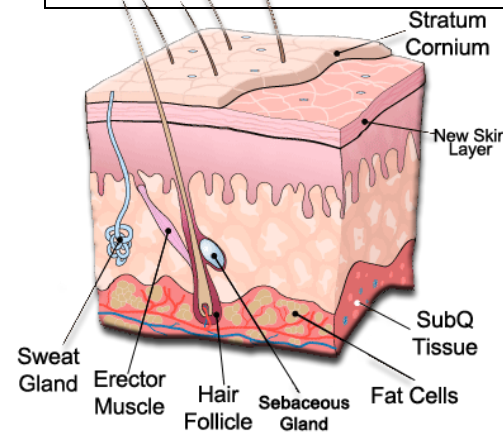
Appendages

Eccrine Sweat Gland	Apocrine gland	Sebaceous gland	Hair follicle (Open in skin surface)
Open in skin <u>Fixed number since birth</u> Heat regulation		- Secretory part open in Hair follicle - Under control of Androgens <u>Increase in number at puberty</u>	★ Follicles types 1-Sebaceous 2.Vellus 3.Terminal
Found in whole body except - Glans penis - Labia minora	Only in: - Axilla - Anogenital	Found in whole body except Palm - Sole	In All body except GLAMPS Glans penis Labia minora-Lid-Lip Areola MM Palm - Phalanx Sole

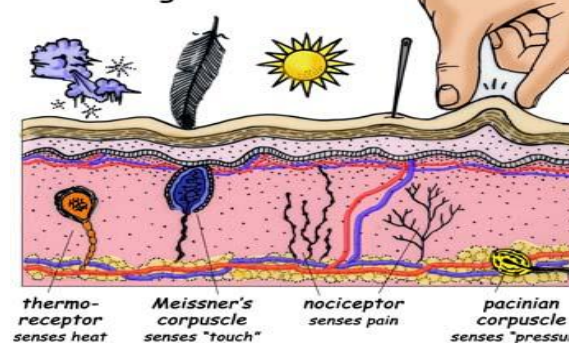
- Nail:** Modified horny cells arranged in solid translucent plates.



Supply	Connective tissue				
Blood • Lymphatic • Nerve (a) Pacini & Meissner's corpuscles: PROTO Meissner's Δ: Pressure + Touch (b) Unmyelinated nerve ending in papillae: 1- Pain "high" intensity stimulus by inflammation. 2-Itch "Low" 3- Temperature ** scratch converts itch to pain (more tolerable) (c) Autonomic: Sweat + blood vessel + Erector pili muscle	- Collagen •Elastic •Reticular - Arranged into 2 layers <table border="1"> <tr> <th>a) Papillary</th><th>b) Reticular</th></tr> <tr> <td>- upper - thin - Haphazard</td><td>- lower - thick - Parallel to skin surface</td></tr> </table> Papillomatosis ↑ thickness of dermal papillae	a) Papillary	b) Reticular	- upper - thin - Haphazard	- lower - thick - Parallel to skin surface
a) Papillary	b) Reticular				
- upper - thin - Haphazard	- lower - thick - Parallel to skin surface				



Sense Organs in the Skin



Skin functions : تڤيد TFID Δ

- Toxins and sweat excretion
- Temperature regulation
- Inhibit Fluid loss : **Skin failure**: dt severe burn skin unable to maintain fluid balance and temp regulation
- Barrier against Infection : arrest microorganism , chemicals, sun radiation
- Vitamin D synthesis
- Stimuli perception : pain touch temp
- Mechanical protection (elasticity)

Immunity and resistance*FSAD 5 فساد و تلت

- Flora** = 5
- Shedding** horny cells
- Sebum** contain antibacterial
- Acidic PH (5.5)**
- Dryness** relative

Skin Flora:

staphylococci (epidermidis), Aerobic Coryneform, anaerobic Propionobacterium , yeast (pityriporum ovale) , Gram -ve bacilli

Lesions

1^{ry}

- **Macule:** Flat, No depression, No elevation, No change in consistency <0.5cm
- **Patch:** as macule but > 0.5cm
- **Papule:** solid elevation < 0.5cm "flat, conical , umbilicated"
- **Plaque:** as papule but > 0.5 cm
- **Nodule:** solid elevation + deeply seated in skin >1 cm "up &downward"
- **Vesicle:** Elevation collection of fluid <0.5 cm
- **Bulla:** as vesicle but > 0.5cm
- **Pustule:** Collection of PUS **1^{ry}**: pus from start **2^{ry}**: infected vesicle
- **Wheal:** Itchy edematous evanescent plaque in dermis ccc. Of **urticaria**
- **Burrow:** elevated linear lesion in superficial epidermis ccc. Of **Scabies**
- **Target: "Iris"** Erythema + vesicle papule in center ccc. Of **erythema multiforme**
- **Comedone:** pilosebaceous duct dilatation filled with sebum + obstruction by hyperkeratosis white :closed black :open

2^{ry}

EXCESS

• **Scales:** dead excess **stratum corneum** cells

• **Crust:** dried secretions (serum, pus , blood)

LOSS

• **Erosions:** focal **epidermal** Loss **above** junction (leave no scar)

• **Ulcer:** focal **epidermal** Loss + **dermis** loss **below** junction (leave scar)

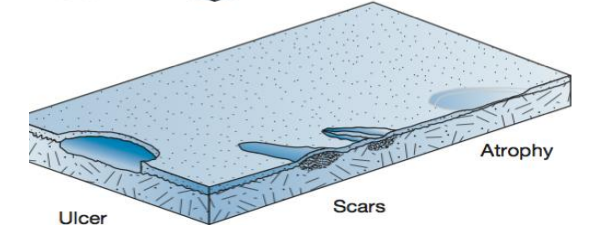
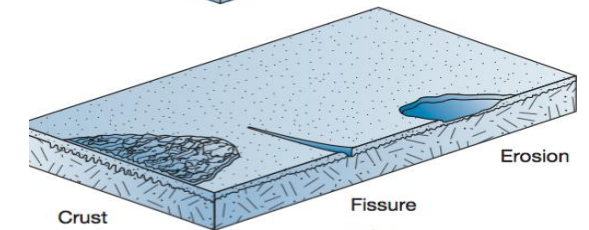
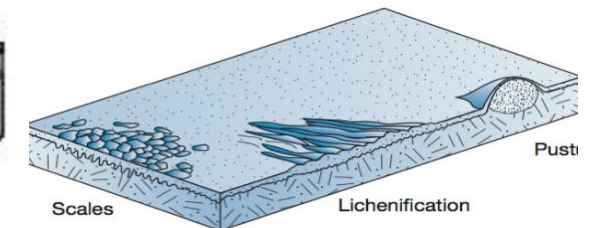
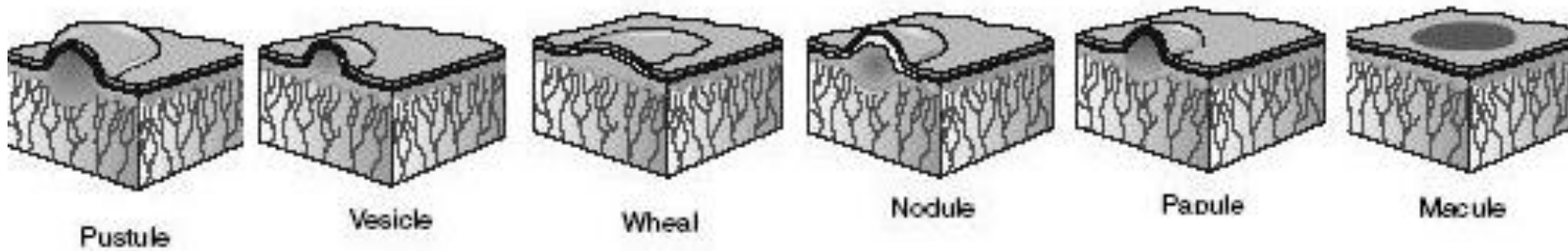
• **Fissure:** **linear** epidermal Loss + dermal loss

• **Scar:** fibrous tissue replaces dermal damage thin pink then thick white

THINNING & THICKENING

• **Atrophy:** **Thinning** dt loss in epidermis **and** dermis it's a depression

• **Lichenification:** Thick skin + hyperpigmentation + increase of skin markings



Liquid

- **Solution** :aqueous solution of pharma. active substance
- **Lotion** : suspension of powder require shaking
- **Tincture** : alcohloic solution

Powder

- Promote drying
e.g.talc powder

Cream

- Semisolid emulsion of oil in water
- *For oozing lesions*

Ointment

- Mainly grease no, little water
not in ulcers
- *For dry lesions*

Gel

- Greasless water + propylene glycol may contain alcohol

Pyogenic skin infections

	Ordinary impetigo Contagiosum(Non-bullous)	Bullous impetigo	Ulcerative impetigo "Ecthyma"	Erysipelas	Cellulitis	Erythrasma KEY : ErythRASMA△
Def.	★Acute Superficial No scar- LN ++	★Acute Superficial No scar- no LN ++	★Acute Deep "Granular layer" scar- LN ++	Acute Deep "dermis+ lymphatic"	Acute / subacute Deep "dermis+ subQ tissue"	Chronic
Cause	Strept –staph PDF: unhygienic condition - malnutrition - itching "scabies –pediculosis"	Staph Toxin (Phage II type 71)	Strept Less by both strept ,staph PDF: Minor trauma- unhygienic	Hemolytic Strept PDF: wound or abrasion IP: 2-5 days	Staph/strept PDF: wound or abrasion	Corynebacterium Minitissimum🤔
Site	(M/C) Face → perioral+Nose Scalp – Extremities	انزل تحت trunk	انزل تحت LL "shin of tibia"+face	Leg + face	Leg	Intertrigo "flexures" e.g.: Axilla - Groin
Age	★Child 5-10 y	★Child (Neonates & Infants) "Can't excrete toxin"	★Child Immunocompromised + old	Child + Immunocompromised +old	Child + Immunocompromised	—
C/P	★ Fluid filled - VESICLE "OEB" - on erythematous base - Rupture rapidly → Honey colored Stuck crust (Hallmark of Ds) → Dry & separate in 2 Ws - Heal → No scar	★ Fluid filled - BULLA OEB - Clear yellow filled& depressed center - Collapse rather than Rupture >>> Thin fine crust - Heal >>>No scar	★ Fluid filled - VESICLE OEB" - Rupture >>> dark adherent crust - Heal >>> Saucer (Dish) ulcer é raised indurated violaceous margin	- FAHM+ - Red hot tender - Well circumscribed - Defined advancing edge - ± pustules, bulla	- FAHM+ - Red hot tender - ILL defined - Indurated	- Reddish patch - White fine Scales - no Active edge
Diagnosis:	1) c/p 2)Gram stain 3)Culture and sensitivity : to isolate specific pathogen – to detect appropriate ttt 4) ERYTHRASMA: Coral RED fluorescence é Wood's light Ex.					
ttt PDF + Antibiotic: local then systemic for superficialsystemic from start for deep دائما مع اختلاف شكله و نوعه و استثنائات بسيطة						
	1) local antiseptic : H2O2 + olive oil 2) local antibiotic : Fusidic acid If failed Systemic antibiotic Amoxicillin or erythromycin 7days If LN++ 📺 3) lesion specific "Remove crust": K permanganate 1/5000		Systemic antibiotic from the start For 10 days			
TTT			-----	Penicillin of choice	+ Hospitalization	+ Antifungal
Complica-tions	- Most serious post strept GN - Food poisoning Don't forget: Circinate impetigo • Central healing + peripheral extension • Multiple lesions arranged circular		Cellulitis Osteomyelitis Bacteremia	BLANC △ Bacteremia Lymphedema Abscess SC Nephritis Cellulitis	Same N.B.: • Both Staph & Strept → ICE → Impetigo – Ecthyma – Cellulitis • Strept Only → Intertrigo – Angular Stomatitis. • Staph Only → Skin Appendages.	

Pyogenic skin infections .. Cont.

Folliculitis	Acute superficial folliculitis "Bockhart's"	Acute deep folliculitis (Boil , Furuncle)	Carbuncle الرجل الذي فقد قفاه	Sycosis barbae	Keloidalis
Def	Acute - Superficial - No scar- no LN ++	Acute - Deep part of follicle - Scar+ hyperpigmentation	Acute - Grouped deep follicles... - Perforation of Others	Chronic - Superficial - No scar (rarly F.B. reaction occurs & ends è scar)	Chronic - Deep - scar
Cause	All Types Of Folliculitis (as one of the skin appendages) Caused By Staph. (Staph : Ph = F = Folliculitis بكل انواعه)				
Site	Scalp + extremities	باقي الجسم Face , neck , trunk Thigh , arm , wrist , finger	ورا Back of neck Shoulder-Buttocks	قدام Beard	ورا Occipital scalp
Age	Any age Common School age	Any age	Immunocompromised + DM + old	Adult Males	Adult ♂
C/P	★ Pus filled - Dome Pustule ...yellowish white pierced by hair - Heal >>>No scar PDF: DM سكر كثير Hyperhydration M/C مية كثير Atopic dermatitis تهرش كثير Shaving /plucking تحلق كثير	★ Pus filled Δ و بتفتح - Start as tender Nodule ... - Become pustule If Recurrent Suspect: anemia -DM - Nasal/perineal carriage Poor hygiene -Immune disorder	★ Pus filled Δ و بتفتح - Red hot tender indurated well-circumscribed - Then spread adjacent follicles local spread ... - multiple opening to expel necrotic material	★ Pus filled Δ و بتقل - Mainly pustules+ papules Recurrent D.D : pseudofolliculitis - dt ingrowing hair - no infection but inf. D.D : Tinea barbea Loosened hair - KOH +	★ Pus filled Δ و بتقل - Pustule - Followed by dome shaped papule - Enlarge and coalesce May form keloid like plaque
TTT	فاكرها ؟؟؟ Antibiotic rule				
	+ antiseptic local	+ RULE: ONCE PUS ONCE KNIFE Surgical incision + warm compresses		+steroid Keloid : Intralesional Dec. scar ليه ؟؟؟	
	Acute Paronychia الصبغ المدوحس	chronic paronychia	Angular cheilitis		
Cause	Child ★ Δ عيل بيقرض صوابه Staph and strept	★ - woman irritation+ Infection - Occupational "food handler" Δ مامته	★ Ch strept * Candida * Riboflavin def. Δ جدو		
Site	Nail Fold جوانب الضافر	Nail fold	Angle of mouth		
C/P	- Red hot tender finger - ± pus discharge on pressure 	- Inflammation (Edema +Erythema) - Absent cuticle - Damage Nail matrix → Nail plate changes Dt. Contact reaction to irritants then→2ry infection by candida or bacteria بسبب غسيل المواعين	PDF: جدو سنانه وقعت و بيريل M/C Mechanical dimension bite • Debilitating-Old age • Ill fitting teeth • excessive salivation		
TTT	Drainage + ABS	Avoid water & Chemicals Combine Topical 3 → Steroids – Antifungal – ABS.	1) ttt PDF + 2) antibiotic /antifungal +vit B complex		
D.D ERYSIPELAS	Strept. main carriage site = pharynx BUT Staph. main carriage site = Nasopharynx				
	• Pseudo folliculitis: non- infectious – Inflam. (F.B. reaction) Dt. Frequent shaving – in men with curled hair (also women in groin) @ angle of jaw → papules & pustules				
	• INTERTRIGO: Inflam. Of skin betw. Folds e.g.: behind ears-under breasts- axilla-groin • Bacterial : Erythrasma- Strept "longitudinal painful fissure (red & moist)" • Other infection: Candida – tinea cruris • dermatitis : contact – Seborrheic • F: flexural psoriasis – friction "simple " TTT: Antiseptic + AB cream				



Each of them has a certain manner in superficial skin lesion "Impetigo"

ع المكشوف... قدام الناس ...

PYOGENIC INFECTIONS

Staph

Bullous

Strept

Ordinary

Impetigo

- Staph = Staff ابن ناس
- Hit Cleanly But Hit hard
بيدى جامد بس على نظيف
- Cleanly >> Mild Local
Bullous & few crustation
No LN enlargement
- Hard >> Toxemia.
- Clean >> Not in Face
- In Specific places >> Nails & Hairs

- واطي
- Hit Dirty But Not Hard
- Dirty >> Severe Local,
vesicular & Crustations +
LN enlargement
- Not Hard >> No Toxemia
- In Dirty Places >> Intertrigo
& Extremities & Angular
- Dirty >> Face affection

** Hair **

1- Acute = folliculitis & frunculosis & carbuncle

a-Folliculitis (Bockhart)

Superficial >> Pustule & hair >> In exposed areas >> No Scar

Foments and AB

b-Frunculosis

Deep >> Nodule then Boil (pus) >> in friction Areas (face, fingers & perineum) >> Scar

Drainage & AB

c-Carbuncle >> In Tense fascias (Dorsal & Dependant parts) in Diabetics Needs Drainage.

2- Chronic = Sycoisis & Keloids

a-Sycoisis

Pustules Pierced by hair in beard area >> Steroids & AB

b-Keloids

Pustules then Papule in Occipital Area >> lesional Steroids & AB

Their manner Change when they are Covered (In Deep Lesions)

من ورا الناس... بيتغيروا الصراع بين الخير والشر ...

** Ecthyma **

*في الوسط ما بين السطح والعمق
Staph & Strept يحدث صراع ما بين الـ

- Staph >> prevents strept from ..
 - Going So deep (Violaceous Margin >> try to prevent) & No Sys affection
 - Face (No face)
- Strept >> makes Severe Local Affection
 - LN
 - Severe Adherent crust then ulcerate (Dish Shaped)

Strept & Staph

** Erysipelas **

في العمق
Staph & Strept لا يحدث صراع ما بين الـ
(No Staph ..Strept Only)

- Strept >> ان غاب القط... العب يا حمار
 - Going So deep (Deep Dermis) & Sys affection >> Blood & Lymphatic affection
 - Affects face (& extremities)
- Strept >> makes Severe Systemic Affection
 - FAHM >> Eruption >> Erythema
 - Local Affection is (Well Localized)

Cellulitis

When they both (Staph & Strept) agree with each other & Go deep
Severe Systemic Affection

Very deep penetration >>
SubQ fat inflammation
Irregular Margin انحرفوا

Staph

Nail = Paronychia

Acute

Children >> Preserved Cuticle >> Intact Nail plate
Needs drainage & AB

Chronic

Adults >> Absent Cuticle >> Lusterless Nail plate
Steroids & AB

Note :

Both acute & chronic occur due to Local cause
Acute >> Trauma & wetting

Chronic >> Irritants & wetting & Candida (السنات والطعمجية)
Women & Food handlers

Cutaneous Tuberculosis ...Mycobacterium Tuberculosis

Aerobic, Aspore forming (non-spore), Acid fast, Motile

Direct inoculation of skin
chancre - verruca Cutis - L. vulgaris

Endogenous source
L. vulgaris, scrofulderma, miliary, orificial

Cutaneous immune reaction
papulonecrotic tubercles - Erythema induratum of bazin

	TUBERCULOUS CHANCRE	T.B. VERRUCOSA CUTIS (Warty T.B.)	LUPUS Vulgaris M/C	SCROFULDERMA تتبي الغدد الليمفاوية	MILIARY TB	Orificialis
Immunity	<u>No previous exposure</u> <u>NO immunity</u>	Previous infection In Butchers & Doctors صحتهم كويسة D <u>High immunity</u>	Previous sensitization Diascopy test : pressing on skin by glass slide erythema fades, nodule of lupus vulgaris appear as yellow brown spot <u>High – moderate immunity</u>	TB underlying structures L.N. (M/C), Joints, epididymis - Bone: sternum, ribs, phalangeal. <u>Low immunity</u>	T.B. bacterium As a result of bacteremia <u>Low immunity</u>	Advanced internal TB <u>Severe low CMI</u>
Site	At site of inoculation 2-4 w IP	Finger, dorsum of hand, sole of foot	<u>Face, buttocks m/c</u> - eye → ectropion - mouth → microstomia - cheek → SCC (Precarcinoma) - Nose → cartilage necrosis بسيب ال Scar	Axilla - Back - Neck بيطلع من ال L.N. على بره	All over <u>The 1ry focus = Lung</u>	Within or adjacent to natural Orifices: - Nose (pul. TB) - Tongue, lips - Urethra (genitourinary) - Anus (intestinal TB)
Lesion & Color	<u>Papulonodule</u> - Red brownish - Indurated, painless - Enlarge and ulcerate	<u>Wart like plaque</u> - Red dusky erythema - D.D.: Viral Warts (No Erythema)	<u>Papulonodule</u> - Red brownish <u>Apple jelly nodule</u> - Coalesce into Plaque	<u>Nodule Indurated</u> - Red - Apple jelly nodule	<u>Papule</u> - Bluish Red - Pin head size	<u>Papule</u> - Red - Edematous - open
Fate	Ulcerates → heals by atrophic scar → LN common affection <u>LN painful and unilateral</u>	- Fluctuant center - Express pus & debris on pressure - فتحي يا وردة	• Central scar which is: • Thick contractile unhealthy (i.e.: contain active nodules)	Open into skin by sinus → Caseous discharge → heals é Scar & keloid	- Capped by vesicle - End by crust - No bacilli	- Ulcerate with <u>- Undermind edge</u> - <u>Ulcer is painful</u>

Investigations **HSPTC** هاشبتك △

- **H**istory
- **S** smear: by **Ziehl-Neelsen** stain
- **B**iopsy: may show **caseating granuloma**
- **P**CR: detect **DNA of mycobacteria in tissues**
- **T**uberculin test: to show immune state
- (-ve if: IC, never exposed to TB)
- **C**ulture on **Lowenstein Jensen media**



Treatment **RIPES** △

- **R**ifampicin **600 mg/day** if >50 kg, **450** if <50, **S/E**: Hepatotoxic, Red urine
 - **I**NH: **300 mg/day**: Neuritis
 - **P**yrazinamid: **2mg/day**: Polyarthritis, liver affection
 - **E**thambutol: **15 mg/kg/day**: Eye visual affection and retrobulbar neuritis
 - **S**treptomycin: ototoxic
- 6 Month regimen: Start with 3 drugs for 2 months (INH, Rif., Pyr.) Then 2 drugs for 2 months (INH, Rif.) ALL on empty stomach**

Leprosy ... (HANSEN's Disease)

M. Lepra

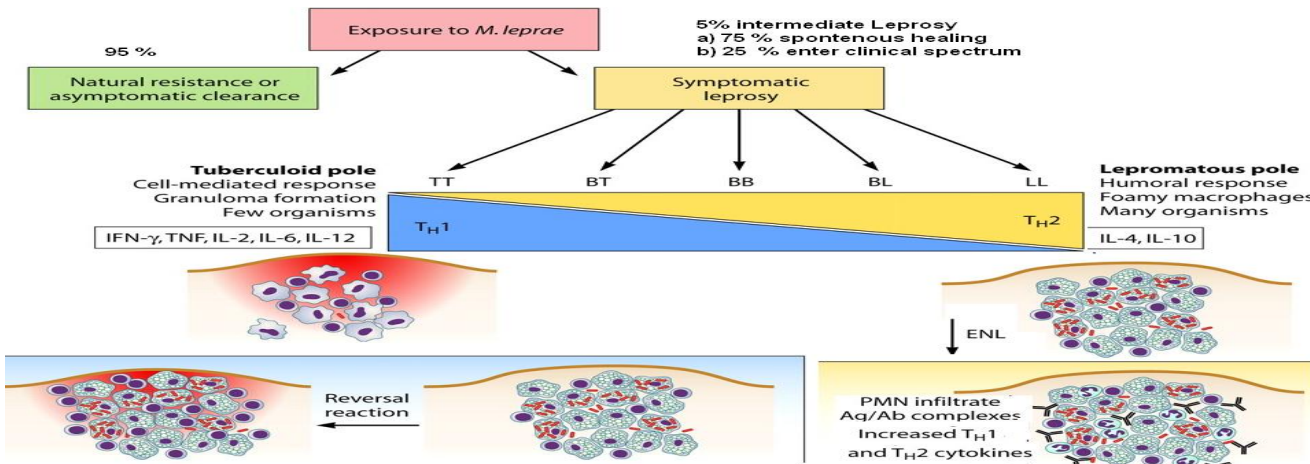
Affect about 10 million individuals worldwide

Obligate intra cellular org. in schwann cells & MQs -- In vivo cultivated in 9 banded armadillo (25° C) Mouse footpad, Mangabey monkey, Cold region as nose, ear, testis, Close to skin as peripheral nerves

*Susceptibility/Resistance depends on → Genetic & Env. factors
*But outcome (C/P) depends on → CMI

Mode of transmission: Droplet Contamination (blood) inoculation (nasal mucosa & skin)

Pathogenesis: I.P: months or years (4-10 years) -- Bacilli → schwann cell → multiply inside → Rupture → spread → dermis and blood.



Nerve involvement:

- A. Superficial: 1. Ulnar n. (M/C) 2. greater auricular n. 3. posterior tibial n. 4. superficial peroneal n.
B. Cranial: 1. Olfactory n. -- 2. Trigeminal n. -- 3. Facial n. (1-5-7) (TOF)

Leprosy Reactions: Acute Inflammation (Exacerbation) [Spont. Or dt. drug or any stress e.g.: infections – pregnancy].

Type 1 (Reversal) : Up or down Immunity!! → Neuritis + Less FAHM

Occurs with borderline leprosy.

Type 2 (Erythema Nodosum Leprosum) Immune complex reaction in pts é L.L
Tender nodule + Severe FAHM

	Indeterminate L.	Tuberculoid L. (T.T) : Paucibacillary	Lepromatous L. (L.L) Multibacillary (Many Bacilli)
CMI	Not Determined	Fairly Good → +ve lepromin test	WEAK → -ve lepromin
Nerve	No involvement	Early loss of superficial senses (heat & touch)	Late (loss of sup. + or- glove and stock hypoesthesia)
Skin	- Single macule - ill defined (Clinically Not determined)	- Single (or < 4-5 multiple) - Well defined Macule - Unilateral (If Bilateral → asymmetrical)	- Multiple - ill defined Macule - Bilateral symmetrical
Fate	Hypopigmented Macule	Usually (hypopigmented, hypohydrotic, loss of hair)	Loss of outer 1/3 of eye brows -- leonin facies
Pathology	Pathologically not determined (Not actually a leprosy type)	Linear granuloma following the nerve No Bacilli in smear	Diffuse infiltration of foamy histiocytes (MQs) in dermis separated from epidermis by normal collagen (GERNZ zone)

Investigations HSBL هسبل Δ	Treatment Imp.
1. History: 2. Histamine test 3. Smear (nasal, skin) → modified Z.N. (fite) stain 4. Biopsy 5. Pilocarpine test 6. LEPROMIN test → properly read at 28 days	MULTIDRUG Strategy 1st Line DRC Δ <i>Rifampicin, dapsone, clofazmine</i> 2nd line OM <i>ofloxacin, minocycline</i> Pauci bacilli DRT Δ <i>: (TT, BT) T أحاجه فيها Δ</i> <i>Dapsone m/c S/E hemolysis</i> <i>rifampicin 600mg /m supervised</i> Multibacilli DRC Δ <i>: (LL, BL, BB) L أحاجه فيها Δ</i> <i>Dapsone 100 mg /d, rifampicin 600mg /m</i> <i>clofazmine 50 mg /d or 300 /m</i>

N.B.: Borderline Leprosy: intermediate between . TT & LL -- Asymmetrical -- If more towards TT it's called Borderline tuberculoid leprosy (BT) & Vice versa.

Tuberculosis

MYCOBACTERIA

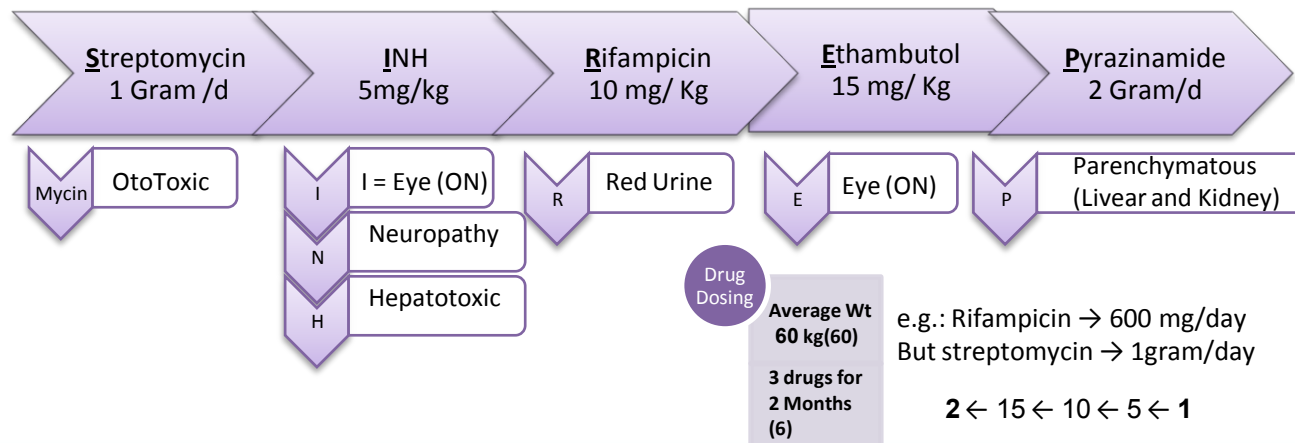
Leprosy

دخل الحرامى ... شوف قلة أدبه

وإنا صاحبة بقى Good Immunity	وإنا عاملة نفسى نائمة Moderate Immunity	وإنا نائمة Low Immunity
<u>TB wart</u> Efficient Barrier مش هيعرف يخترق وعشان كذا الـ Lesion هتبقى: Elevated & Verrucous باطظة	<u>Lupus Vulgaris</u> Moderate Barrier Some Skin Affection → Nodules Some Dermal Affection → Scar	<u>•Chance = Chancre</u> •Bad barrier •open the door (papule باب) •Penetrate Deeply •Smoothly with NO pain •Reach L.N.
السكة مفتوحة •هيفتح الباب ويخترق بسهولة D: ويوصل للوحش		
All Of infective Origin ← وعشان كذا:		
Pus & Scar (fissures) (instead of organism) Brownish	Organism + Overlying Scar → Reddish Brown (Disacopy test)	Organism Living in the base Dusky Red
قشط الشقة .. عايز يخرج .. يفتح الباب ويخرج بلا رجعة .. Low Immunity		
يخرج عن طريق فتحة طبيعية: Normal orifice >> Orificialis Undermined Edge .. بلا رجعة	No Normal Orifice (Superficial Organ) → Open Artificial one i.e.: Sinus (by a screw شنيور) then Close بلا رجعة → keloid & Scar Scro Flu derma (Screw = Scro + Flu = LN)	
If deep → Travels via blood (Miliary TB) and Exits by Serum oozing (Vesicles) *But No organism*		
TTT: SIRE Please, Take your medicine → SIREP		

اللى يجيله المرض دا .. يبقى نحس .. وهينحس

نحس → Dt. Low Pathogenicity – Long I.P. (2-10 ys) – Spontaneous Cure in 75% هينحس → Loss Of Sensation	
البكتيريا داخلية الجسم من خلال الجلد ... عايزة تروح العصب ... ف هتركب مواصلة ... Macrophage (as its OIC = Obligate I.C. Org.)	
Good Immunity = Lots of Macrophage هتروح على طول على العصب Tuberculoid Leprosy	Low Immunity = No Macrophage هتركب الدم .. هو هيوصلها متأخر Lepromatous Leprosy
Straight ahead to Nerve	Blood Dissemination
•Well patient = Well defined •Good immunity = Lepromin +ve •Few of Lepra Bacilli •Granuloma •Lost Pigmentation •Few Skin Lesions : Unilat –Single & Asymm •Early Nerve affection = Pain & temp .	•Ill patient = Ill defined •Low immunity = Lepromin Negative •Lots of Lepra Bacilli •Grenz Zone (bacillus)+collagen •Leonine facies •Many Skin Lesions: Multiple –Symm & Bilat. •Late Nerve affection = PN (peripheral = late)
Nerve Dissemination Linear Nerve Affection Lost Sensation in Ulnar & Trigeminal why?	Moderate Immunity (Borderline) Some To Nerve Some Via Blood Lost Pigmentation e intact sensation Neuritis Mild FAHM Type I Lepra Reaction
Blood Dissemination Feverish & Arthritis ENL (Type II)	

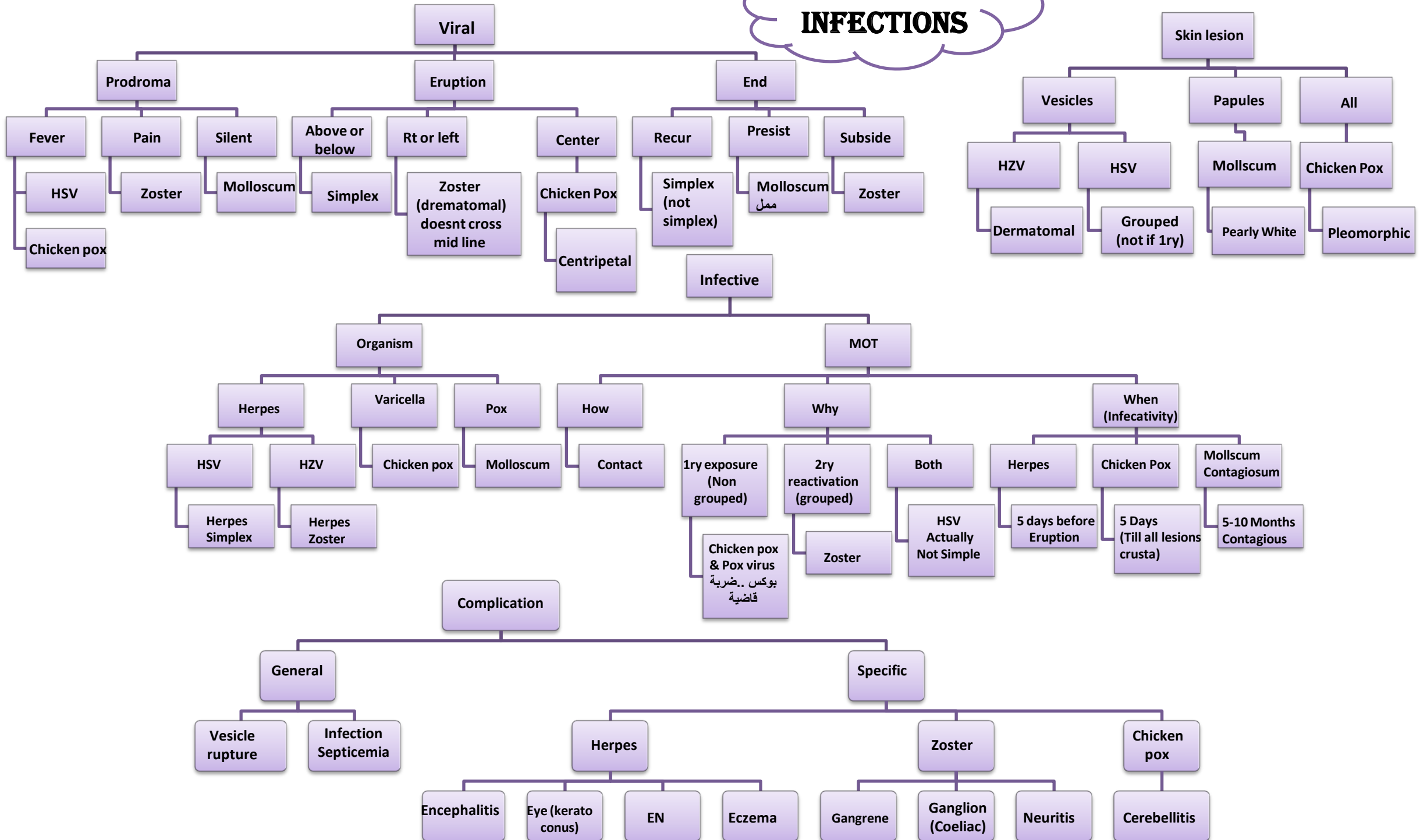


فعلا نحس >> TTT
بيموت فى الـ Rifampicin .. Cidal
دبسوه .. Dapsone فى العلاج سنتين
Clofazimine

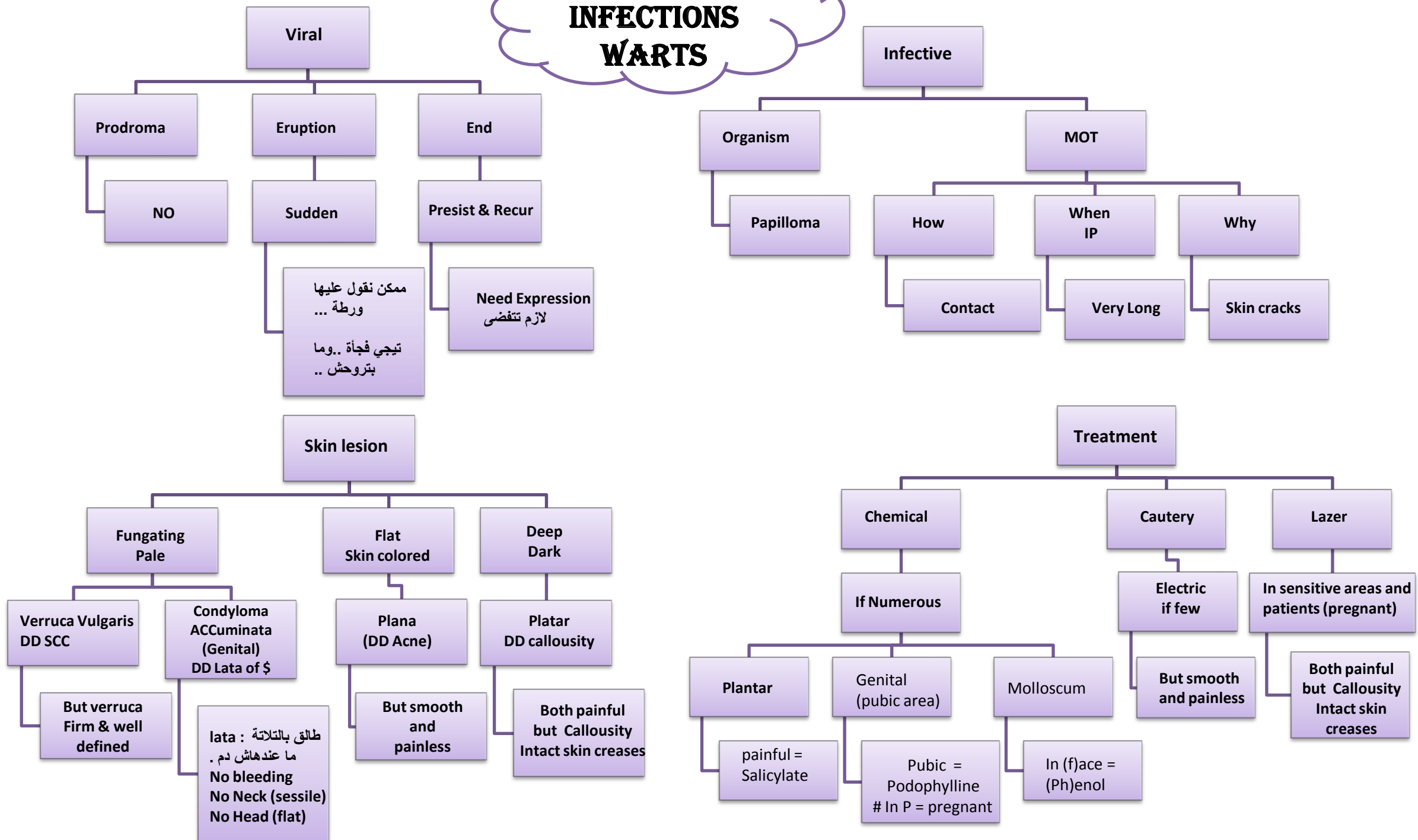
Viral skin infections .. Herpes means Grouped lesion 📌

	Herpes simplex I	Herpes simplex II Progenitalis	Herpes Zoster	Chicken Pox	Molluscum contagiosum	Viral Warts (Verrucae)			
Cause	Herpes simplex I 1 ^{ry} or 2 ^{ry} <u>Contact – fomites -medical procedures</u> 📌	Herpes simplex II “” 1 ^{ry} or 2 ^{ry} <u>STD</u> 📌	Varicella Z. Reactivation on <u>dorsal root ganglion</u>	Varicella zoster 1 st attack <u>Direct-droplet</u>	Pox virus 	Human Papilloma Virus (HPV)			
Site	Face :Perinasal MM :Keratoconjunctivitis gingivostomatis Finger = <u>whitlow in dentist</u>	Genital ♀: VVC : Vulva Vagina -Cervix ♂: GP : Glans Penis Shaft Scrotum	<u>Strictly unilat. Dermatomal</u> : - Cervical (C _{2,3,4}) - <u>Trigeminal (ophthalmic division)</u> - Thoracic - Lumbosacral	<u>Centripetal</u> كتير في النص يقال ع الاطراف - Face & Neck - Trunk - MM (Eye & mouth)	- Any site esp.: • Face • Trunk • Thigh	Vulgaris	Plane “S” Sun Exposed Surface - Face - Extensor hand	Genital (P) ♀: Vulva & Vagina ♂: Glans (P)enis	Plantar (B) *Sole *Betw. Toes *(B)ony prominences
c/p	VESICLE OEB أى HERPES △			All	PAPULE	PAPULE			
	Rupture Crust No scar - Recurrent 📌 - No LN++ - End 1 W <u>-Burning precede or with</u>	- Recurrent 📌 - Painful - Shallow ulcer - Latency for life - -ve dark ground	- NOT Recurrent 📌 *LN++ Scar *End 3-4 W *Pain precede 1-3D *Bilateral HZV =Hodgkin	Polymorphic eruption Papules, macules, pustule Pruritic	Painless Papules Pearly white Umbilicated center	Grayish - Rough 📌 <u>Slightly darker than skin</u> Dull, dry, Firm <u>well defined</u>	- Smooth - Skin colored - Special TTT	- Grayish (P)edunculated - *(P)apules coalesce Cauliflower Condyloma acuminata	- (B)lack center =Thrombosed vessel *cone shaped *Painful
TTT	Antiviral Local : Gentian violet /acyclovir cream Systemic : Acyclovir 200mg (Except*) x 5 / day for 10 day+ ttt most annoying				Cautery				
	Self limiting 7 days <u>Remain latent in root ganglion, Recur é PDFs:</u> FAM :Fever – Flu (URT) Anxiety – Abd.(GI upset) Mechanical trauma. Menstruation	TTT Never clear virus <u>i.e.:latency</u> 📌 + Examine sexual partner قاعدة لاي genital lesion	Acyclovir 800mg* + Pain killer	+ Local/systemic Antipruritic Calamine / Antihistaminic	Chemical: Phenol.... + 📌 the best Expression Of papule content = Curettage 📌	Chemical :acetic glacial _ salicylic 10-60% _ salicylic+lactic Electrical CO2 Cryotherapy :with liquid nitrogen -196°C Plane in Face: topical keratolytic Retinoids other ttt cosmetic defect Genital : 25”%(P)odophyll in in tincture benzoic #pregnant + Examine partner 5 % acetic acid to visualize lesions + ttt small on normal M 📌			
N.B	Complications : - Herpetic Eczema 📌 - Encephalitis - Meningitis - Keratoconjunctivitis - Erythema multiform	Pregnancy 1 ^{ry} : dangerous ☹ Can infect fetus → C.S 2^{ry}:Safe smile☺ Don't affect fetus Best for pregnant cesarean الأحسن في جميع الاحوال	Complication -M/C :Post herpetic neuralgia (end 1y) 📌 -gangrene -2ry infection - ophthalmicus herpes -“ celiac ganglion ” 📌	Pt is infectious 1st 4 days before eruption Until crust dry	I.P.: 6-9 m	• I.P.: 1-8 m (so follow up sexual partner of genital warts patient for 2 years) • D.D <u>Condyloma lata</u> of syphilis and acuminata • D.D <u>plantar and callus</u> : callus is crossed by skin crease + hyperkeratotic skin • D.D <u>acne white comedon and plane</u> • Complications acuminata : Cervical intraepith. Neoplasm - Cesarean delivery (Obstructed labour if too large)			

VIRAL INFECTIONS



VIRAL INFECTIONS WARTS



Parasitic Skin Infestation

Scabies B IS THE KEY		Pediculosis		
Organism	Sarcoptes scabiei hominus -Larva molt 3 times - IP 1-3 w 🐛 Need at least 10 overgious ♀- ♂ left on skin 🐛	P. H Capitis <i>fertilized</i> ♀	Pediculus Humanus corporis	Phthirus Pubis
High risk	Close contact to case – needs minutes 🐛 – War or natural disaster	School age	Travelers -Vagabond متشرد	Sexual partners
Site	- Between digits -Penis scrotum-Buttocks-Periumbilical - Extensors →elbow, knee ,ankle Flexor → wrist - Spare head ,face, interscapular except in infant في كل مكان	Scalp mainly occipital 🐛	Clothes Visit to feed 🐛	Axilla Eyebrow Eyelash 🐛
Symptom	ITCHING :scratching with finger tips 🐛 Nocturnal severe بالليل all night, more in winter 🐛	ITCHING (Pruritis) △ + 2ry infection It “crusted hair” Dt salivary Ag of lice		
Signs	- Burrow : elevated brownish tortuous linear lesion - polymorphic : pustule, papule, vesicle - Caused by mite, egg in the middle of it, extend in the whole dermis 🐛 - الحشرة لا ترى بالعين المجردة : - So, scrap burrow with blunt scalpel + KOH 10% ...see mites and eggs OR its fragments.	الحشرة ترى بالعين المجردة👁👁 • الحشرة في الشعر و اثارها.... 1- الحشرة في الشعرة - Nits are seen > lice - Shiny -Firmly cemented 🐛 - Seen low power microscope - wood light 🐛 2- الحشرة في الملابس واثارها في الجلد • Red spots on clothes • scratch marks in skin 3- الحشرة في الشعرة و اثارها.... • Lice seen grasp hair shaft • Red spots on clothes • skin scratch mark M		
TTT	RULE : 1) TTT 2ry infection 1st:systemic antibiotic give Whitfield ointment for capitis 2) نصف مكانهاشعر ...او هدم 3) disease ttt لجميع الحشرات و جميع الافرد و جميع المثلثات : malthione 4) Symptomatic ttt (الهرش) : antihistaminic +soothing lotion Ivermectin added for scabies 2) Boil and iron clothes 3)A) applied to all skin neck to heel 🐛 TTT. repeated 4 successive days ▶ MALathione 0.5% ▶ PERmethrin 5% for adult(2.5%child) ▶ BENzyl benzoate emulsion 25% ▶ Gamma BENzene Hexachloride 1 % #after bath↑ absorption and S/E...CNS toxic - #pregnant only sulfur-per. ▶ Crotamiton 10% ▶ Sulfur ointment 5-10% اهم ttt :yellow soft paraffin after Bath and brushing, left at least 24 h (contact dermatitis) 3)B)Mass TTT to ALL itchy family members contact case			
Scabies Types: V imp 🐛🐛 مشكلة نظافة:Scabies In clean: Disease mild: hardly seen burrows due to frequent bathing Norwegian:severe thousands-millions of mites in I.C,MR, heavily crusted lesion keratotic مشكلة علاج : Nodular scabies: persist s/s months after adequate ttt as Pruritic nodules in genitalia+axilla dt hypersensitivity so respond to interlesional steroids Incoginto scabies : decrease s/s dt tt as topical or systemic steroids رشيدة : Animal : absent burrows ,lesions at contact site with animal, self limiting ,no man-man transmission بكار ابو كف رقيق : Infants :vesicular lesions due to thin skin , rare burrows, affect palm, sole, face Complications : post scabies <i>pruritis</i> – 2ry infection D.D : impetigo – insect bites – contact dermatitis – atopic – papular urticaria Flea : 3 legs – laterally compressed -Lice : 3 legs , dorso- ventrally flattened Tick : 4 legs , dorso-ventrally flattened -Mite: 4 legs , dorso- ventrally flattened				

Fungal skin infections ... CONFINED To STRATUM CORNEUM EXCEPT: DEEP MYCOSIS

DERMATOPHYTES = TINEA “INFECTIVE” Multicellular filaments "hyphae" + reproduce by Spores□					YEASTS "Non Infective" Unicellular + reproduce by Budding	
1. Trichophyton : ▪ Violaceum ▪ Verrucosum ▪ Rubrum ▪ Schoenleini ▪ Mentagrophytes 2. Microsporum Canis =MC 3. Epidermophyton Floccosum =EF					1. Malassezia furfur(MF): Dimorphic yeast 2. Candida Albicans: Opportunistic	
فوق □						
	Tinea Capitis				T. barbae	Oral Thrush
	Black dot	Scaly ringworm	Kerion	Favu\$		
	T. violaceum	T. violaceum +MC	T. Verrucosum / Menta.	T. Schoenleinii ∆ فول بشلن	----	Candida Albicans
Occur in	Child > adult dt. Fungistatic effect of sebum (Exceptions: *Favus: Also affects adults *Kerion: Zoophilic)				Beard	Tongue + buccal mucosa
C/P	• Hair Broken off after it erupt → Black stumps	• Short cut hair	• Easily removed hair+ • Multiple painless swellings with few pustules • No LN++ [Kerion = كلاكيع] • No bad general condition	• Scutula = sulfur cups = • Thick yellow adherent crust around hair • Diffuse scalp involvement • Slow extension	Like kerion Angle of mouth	- Pseudomembrane - Whitish curd like patches - OEB - Associated Angular stomatitis الـ Candida بتعمل الاتنين
	- No scales - No scars	- Scales - No scars	- No scales - Scars only if ttt improperly = Cicatricial alopecia	- No scales Scar: Permanent alopecia w/ coconut scattered hair		
في النقص □						
	Tinea corporis		Candida intertrigo		Pityriasis versicolor =MF Fungal Fersicolor	
Site	Trunks and limbs		Axilla – Submammary – Interdigital – Groin		Neck and trunk (face, scalp less common) (T shirt area)	
C/P	- Itchy circinate lesion : healing center+ active edge - Edge : raised with many papules, pustules, crusts - Recommended site for scraping		- Well defined erythematous lesion - Edge: foostened with satellites outside “papules..”		- Well defined macules and patches hypo/hyper pig. - Cigarette paper scales Very recurrent after ttt - PDF: Sweat, Humidity, Immunity shift	
تحت □						
	Tinea Cruris		Tinea Pedis “Athlete’s Foot”		Genital Candida =STD كبار	
Site	upper medial thigh T. Rubrum +EF		PDF: washing(Hyperhidrosis”, Occlusive foot wear, Hot weather, Swimming bath) more in adult		♂ Glans penis=Balanitis ♀ Vagina Child: Intertrigo	
Lesion	Well defined erythematous patch + Active Edge...		Variants : • Ch. Interdigital: (M/C) ,bet 4th-5th, itchy • Acute vesiculobullous • Sq. hyperkeratosis “Chronic scaly” D.D Psoriasis nail -Paronychia dt Candida & Bacteria D.D macerated toe web : Candida, G-ve, Tinea		Napkin dermatitis “Diaper Rash” صغيرين • Young infant...candida • Ill defined erythematous lesion • + Satellites + Involve folds	
	Onychomycosis by tinea - candida - moulds - Brittle, friable, Lusterless nail - Separated from nail bed by subungual hyperkeratosis Start lat. or from free margin - PDF: Trauma, DM, Moisture					
						

Investigations



Direct Microscopy

scrap edge → on glass slide
→ add KOH 10% → gentle warming → **+ve if hyphae and spores**

Culture

Sabaraud agar
2-4 w
Confirmatory
+ *C.A. by morphology of colonies*

Wood's Light examination

change wave light according to filter
For screening outbreaks
Violaceum → No color
Microsporum → Green fluorescence
Malassezia → Golden yellow

Treatment

PDF

Should be avoided
as humid, sweaty weather

Topical

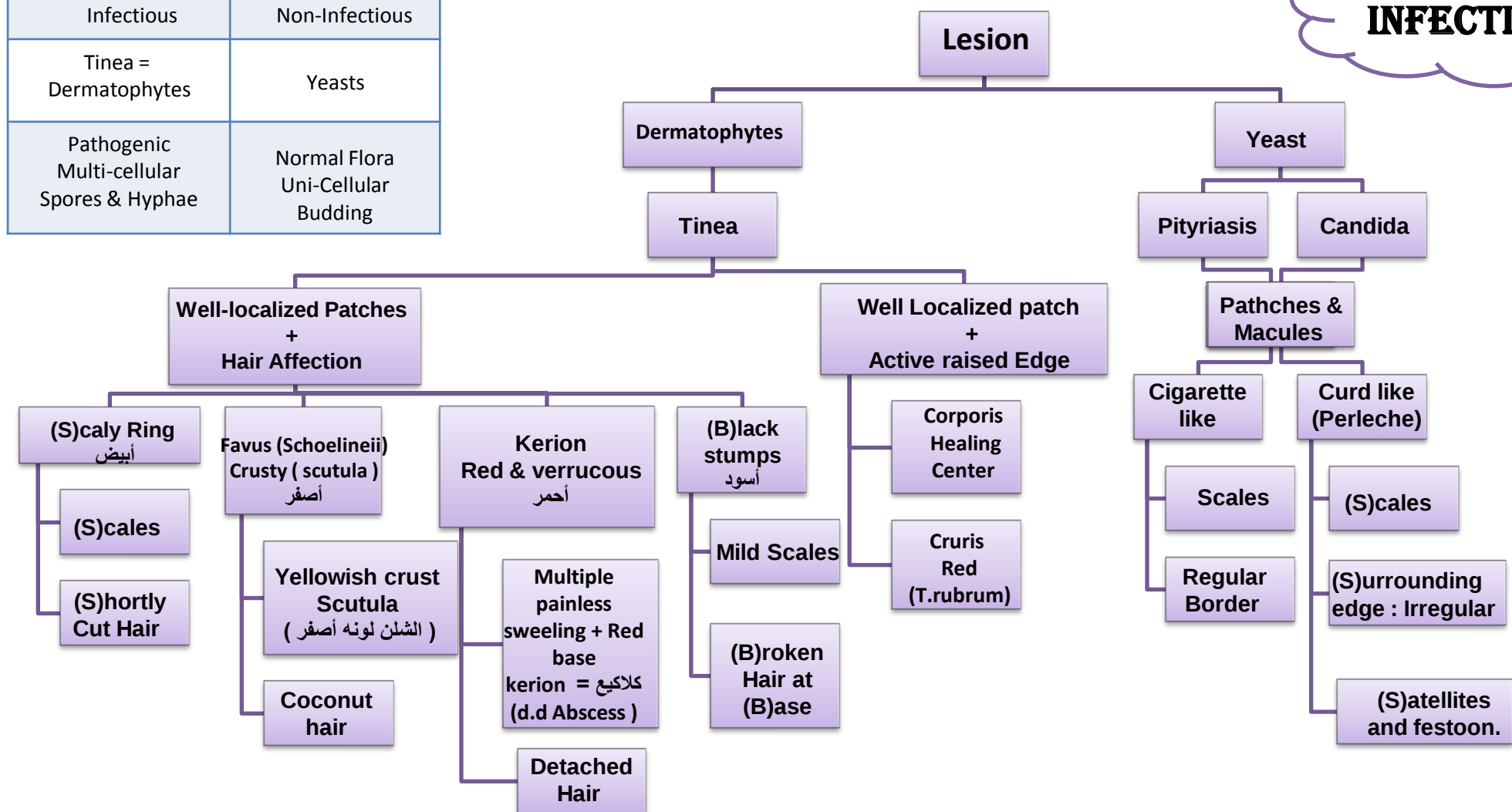
سائل **Tincture idoine 2-5%**
وسائل Aqueous solution of Na hyposulfit 20-25% **for pityriasis versicolor**
كريم **whitefield ointment** 3% salicyclic - 6% benzoic -
10% Ianolin -100 vaseline
كريم **BS antifungal** Imidazol e.g. ketoconazol, fluconzol

Systemic

1. Broad spectrum antifungal: for severe extensive cases+candida
2. Griseofulvin: Fungistatic -after Fatty meal
depoisted in keratin prevent further hair invasion
12.5 mg/kg/day each tab 125 mg max 6 tab
2-4 w tinea corporis, circinata
6-8 w capitis , 10w favus, 6m onycho finger, 12m onycho toe
pregnancy , Heaptic faliure , Photosensitivity
Not effective for candida , pityriasis (Yeasts)

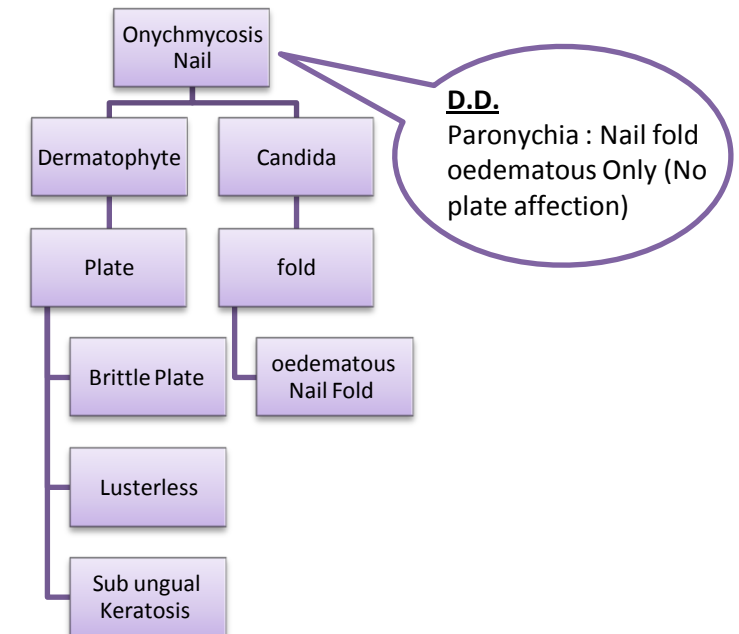
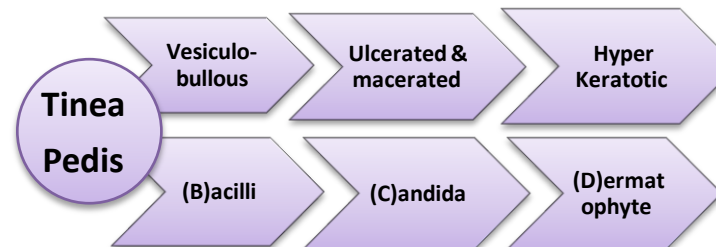
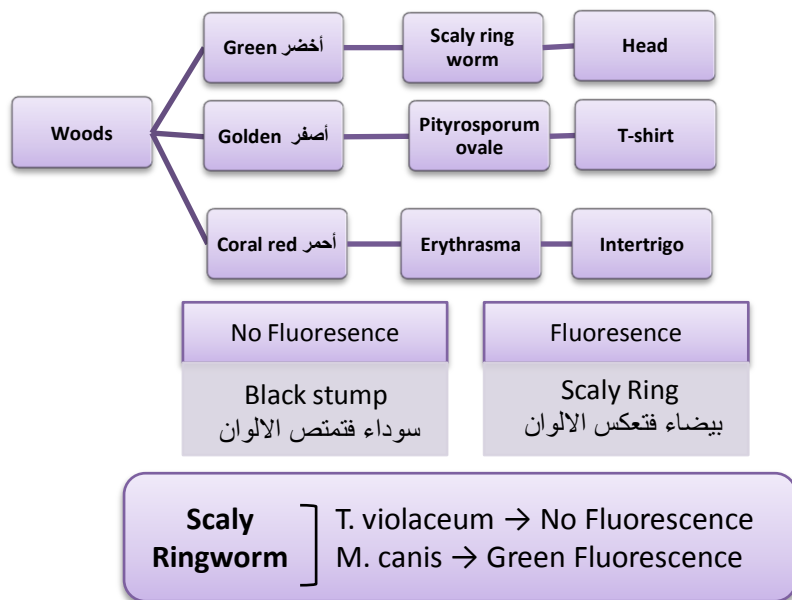
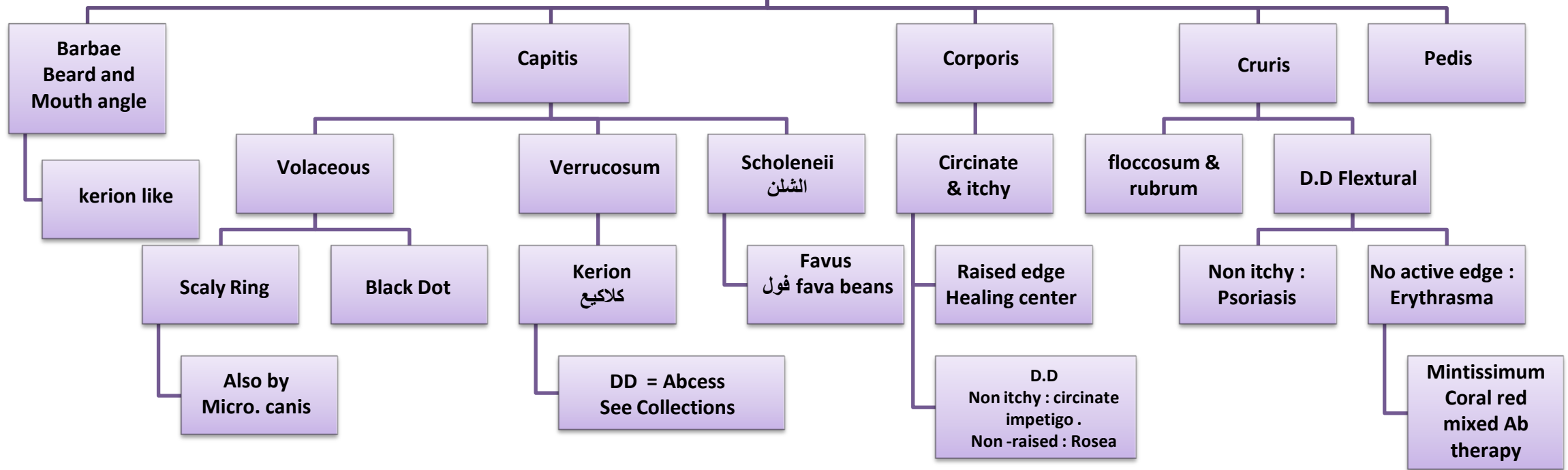
- ✚ **D.D T. corporis:** *Circinate impetigo : non itchy, gummy crust , -ve microscopy | *Pityriasis rosea : edge not raised, scales *collarate* ,-ve
- ✚ **D.D T. cruris:** Seborrheic dermatitis, Intertrigo , candida, flexural, Erythrasma, psoriasis
- ✚ **D.D favus** : “SISA” Seborrheic dermatitis, Intertrigo, psoriasis, alopecia areata
- ✚ **D.D Kerion** : acute pyogenic infection (Abscess)

Fungal Infections	
Infectious	Non-Infectious
Tinea = Dermatophytes	Yeasts
Pathogenic Multi-cellular Spores & Hyphae	Normal Flora Uni-Cellular Budding



Yeasts	Organism	Cause	Itching	Distribution	Sites
Pityriasis	Pityrosporum ovale Malassezia yeast	Shift of immunity	Non-itchy: Recurrent	T-shirt distribution	Skin Only
Candidiasis	Candida Albicans	PDFs (See B4)	Itchy: Chronic	All over the body	Skin & MM

Tinea

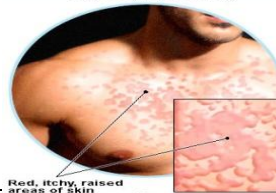
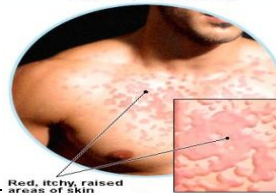


Allergic Diseases

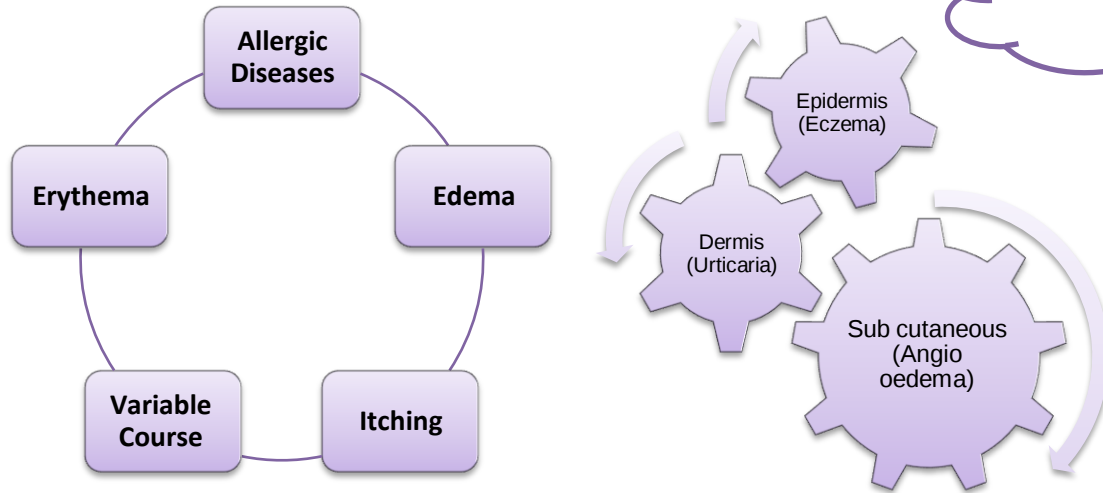
1- Eczema (Dermatitis)

Inflammatory non-infective condition /LL defined +- ITCHY

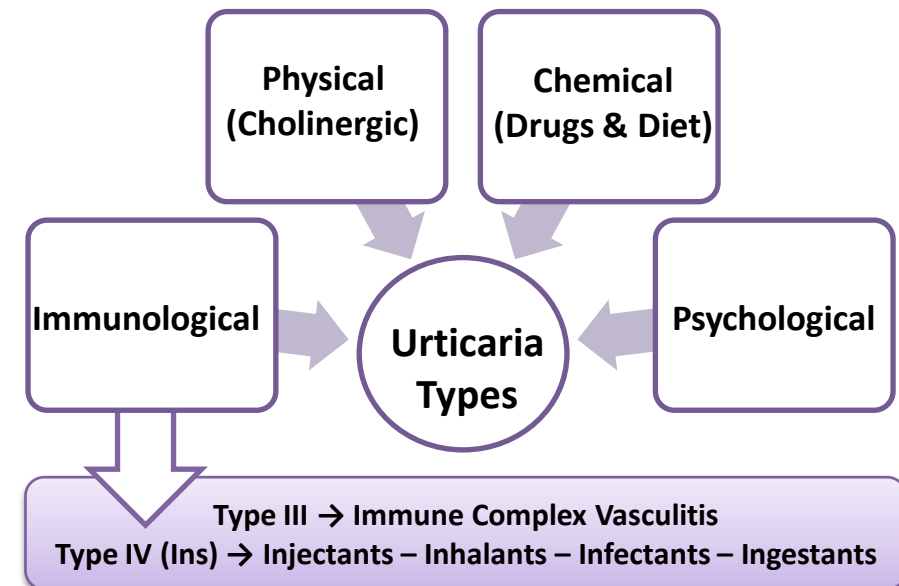
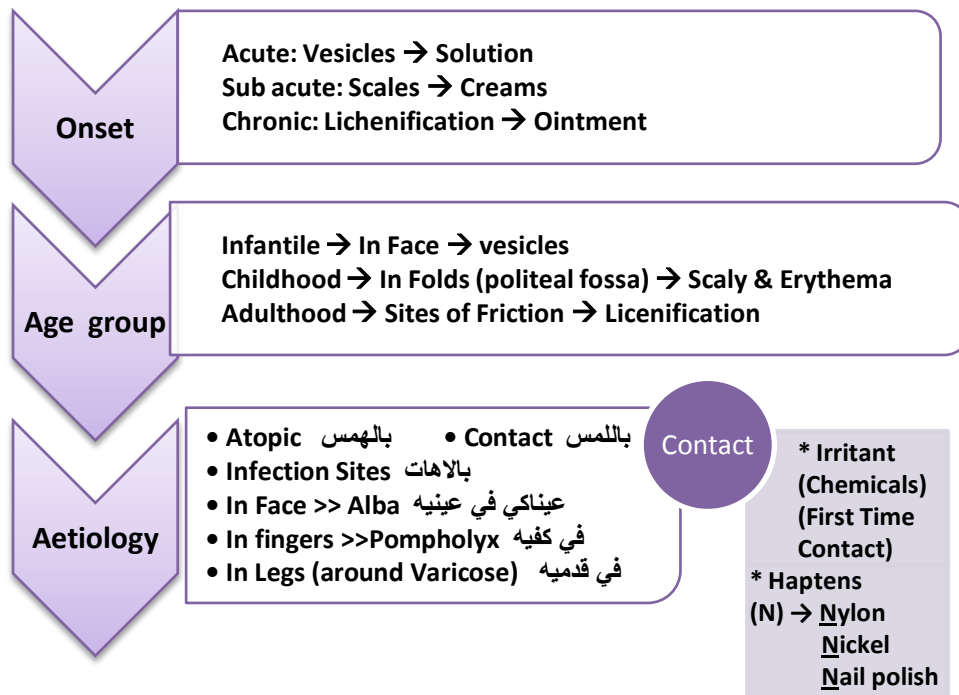
Acute: Papulo-vesicular with Exudation + Crustation or Patches Erythematous Can't be defined (ill)					Chronic: Dryness .Lichenification		Sub acute: Scaling + Erythema			
	Contact		Atopic Type I Hypersensitivity			Dyshydrotic = Pompholyx	Pityriasis Alba	Varicose = Stasis	Infective Eczema	Discoid
	Irritant	Allergic	Infant	Child	Adult neurodermatitis					
Path.	All people Direct irritant effect *Acids *Alkalis *Detergent S	Only predisposed IV hypersensitivity To Haptens (incomplete Ag) *Cosmetic *Chemical *Local drugs *Textiles •At dentist :local anesthesia- Arsenic un polymerized	Chronic *Environment *Genetic ..+ve FH of asthma, urticaria , *Immune Dysregulation TH2 in acute TH1 in chronic			Sub acute In heavily Perspiring “sweating” people Differ from acute : all stratum corneum affected	Chronic Like atopic Unknown Mostly Environment Mostly child	Dt ↑ Lower limb venous pressure	Infective	More common in adults
Site	Of contact “Spare skin folds” • No immune site • Commonly several unrelated sites		Bilateral symmetrical			Side fingers Toes Sole	Face فوق	Lower part of leg تحت	Around discharging area ear, nose انت بعد دور برد	Extensor aspect Of limbs
C/P	EC OR PEC Exudation + Crustation or Patches Erythematous Can't be defined(ill) • IP= first time 5 days then 24-48 h • Differ acc. Allergen, frequency of exposure surface area exposed, route • Tested by: Patch test ...48 h		Itching and scratching automatic reflex - Papule EC - LN++ dt. 2ry infection - May develop cataract bilateral in severe cases - 30% develop asthma or hay fever			Itching - Deep vesicles - Dry in 2 w - Desquamate	- Oval Patch -Erythematous - Scales Branny white Or Lamellar - In Recurrent Crop - End by hypo-pigmentation	- Patch - Erythematous - Scales - Blue macules around it dt Hemosiderin - End by ulceratn around malleoli -Oozing	- Patch - Dusky Erythematous - Exudation - Crustation ± conjunctivitis Or arthralgia Or residual bruising	- Bilateral - Symmetrical - Coin shape With - Demarcated edge
Ttt.	Acute					Sub acute			Chronic	
	Local : Potassium Permanganate 1/8000 Lead sub acetate solution 1/10000 +steroid cream if oozing Systemic : Antihistaminic -Antibiotic – Cortisone					Steroid cream BEST ttt for all types is to avoid cause			Corticosteroid cream Emollient in atopic for long term	

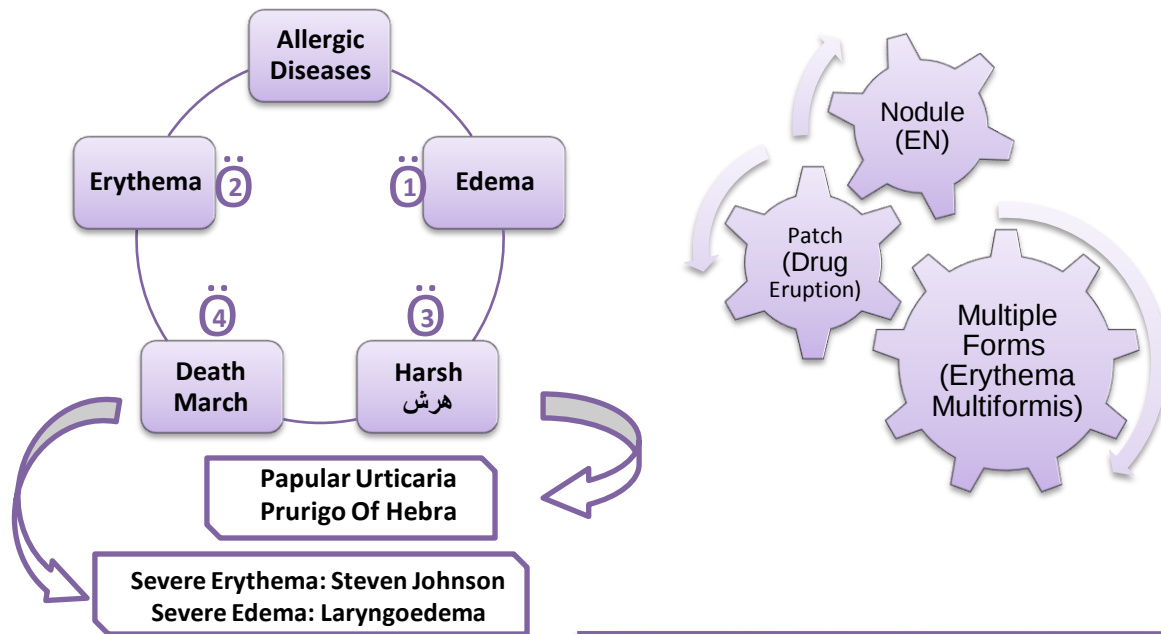
	2- Urticaria Type I		3- Angioedema	4- Papular urticaria	5- Prurigo of Hebra	6- Erythema multiforme	7- Erythema nodosum	8- Fixed drug eruption
Path.	Allergic Ag-Ab *Inhalant *Infectant *Injectant *Infestant Non unknown *Psychogenic *Heat, cold *Chemical *Drugs Degranulate mast cell Release VD it erythema "IL3,4,5,6,8,13, TNF, histamine" + ↑capillary permeability it edema Upper dermal layers		Sudden urticaria ↓ Subcutaneous involvement 	Chronic Recurrent Due to Insect bites In infants and child 	Chronic Due to Allergy to Insect bites In atopic person + Poor hygiene 	Hypersensitivity *Infection :  Herpes simplex M/C mycoplasma, pneumonia *Drugs *Idiopathic *Other: malignancy , radiation, vaccine 	Hypersensitivity  *Infection : Strept, Leprosy , TB, Sarciodosis, Chlamydia , Viral, Fungal * Drugs *idiopathic *Other: malignancy Enteropathies	Specific reaction to one drug at same site on administration Drug eruption cutaneous reaction to any drug At first dose or during course or on stoppage
Site	Any part of skin 	Lids , Lips, Hands , Genitalia	Extensor surface of limbs and trunk	Extensor surface of limbs more affected than trunk	*Bilat, symmetrical *Hand, palm, wrist, Forearm ,elbow تصيب الايد Feet ,knee ↓face, trunk 	*Bilat, symmetircal Mainly anterior of lower limb تصيب الرجل 	Lips Dorsum hand Genitalia Any body site or generalized	
	ITCHING							
C / P	Wheal Transient evanescent Erythematous swelling various size Sever Itching stay 1-2h Never > 48h Types : 1. Acute 2 Chronic idiopathic 3. Vasculitis HS III 4. Allergic contact. U: HS IV 5. Physical U: mechanical, temperature, solar, aqua Tested by :Prick test 15 min	If laryngeal Hypotension Respiratory distress Shock=VD Peripheral Death in minutes 	Severe Itching Urticarial wheal Followed by *Itchy firm Papule *Scratch marks *In grouped clusters *In recurrent irregular crops	Itching May start as Papular urticaria Followed by *Itchy firm Papule ± vesicles on top *Scratch marks * Lichenification *LN++ superficial : Trochlear, inguinal	- Polymorphic - Macule, papule, Vesicle - Ccc Iris(Target) Circular Erythema +papule ,vesicle in darker center - Recurrent Regular crops in few days Fade 1-2 w	- Nodule - Multiple - Tender - Erythematous - Warm 	Sharply margined Patch dusky erythematous edematous then become violaceous ± Bullae on top * It heals leaving Permanent bluish discoloration e.g. : penile erosion recur usually after tonsillitis	
	Steroids if severe + علاج العرض Itch / Pain / dry							
ttt	1- TTT of the cause 2- Adrenaline 1/1000 SC ≠ Hypertension, CVS disease 3- Antihistaminic : ↓wheal size and itching than 1 st : cause sedation 2 nd , 3 rd : Better no sedation 4-Steroid if severe 5- Ca gluconate 10% slowly IV on 10 min		1-ttt cause: avoid insects 2-Antihistaminic 3- antipruritic 4-S. steroid if severe + 5- soothing lotion as calamine Lotion	1-ttt cause: change environment 2-Antihistaminic 3- 4-Tsteroid Steven's Johnson \$ 20% die if no ttt Severe form of EM + FAHM +macula-papular generalized bullae Crops every 3-4w+oral MM . Purulent/ catarrhal conjunctivitis	1-ttt cause 2-S steroid if severe		1-ttt cause 2- Rest , analgesic, antipyretic 3-Aspirin 4-S steroid if severe	1- Stop the drug 2- Emollient 3- Topical steroid

ALLERGIC DS.

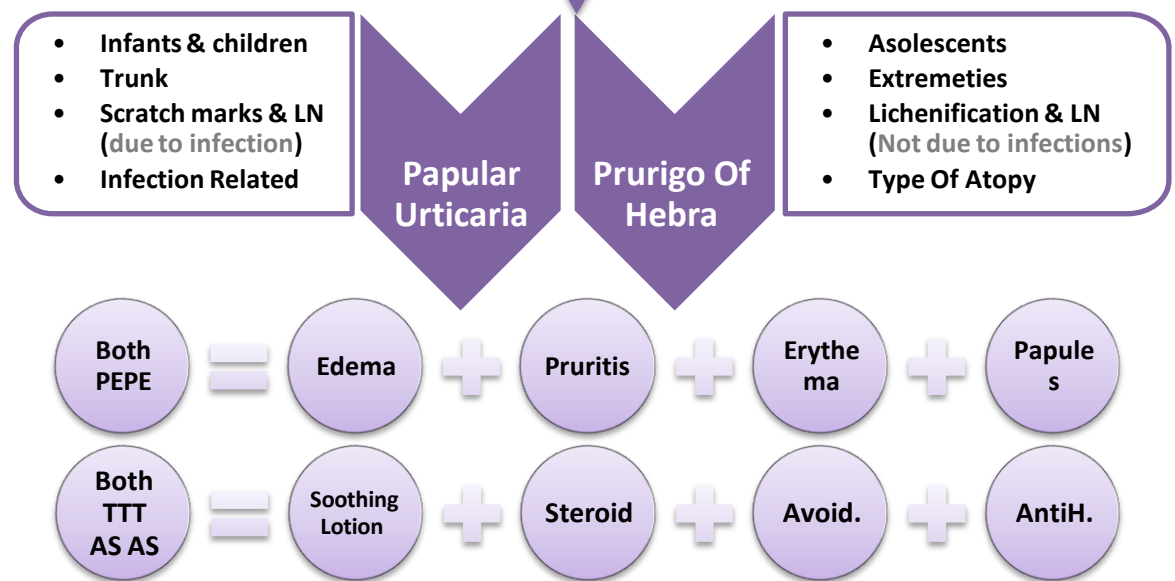
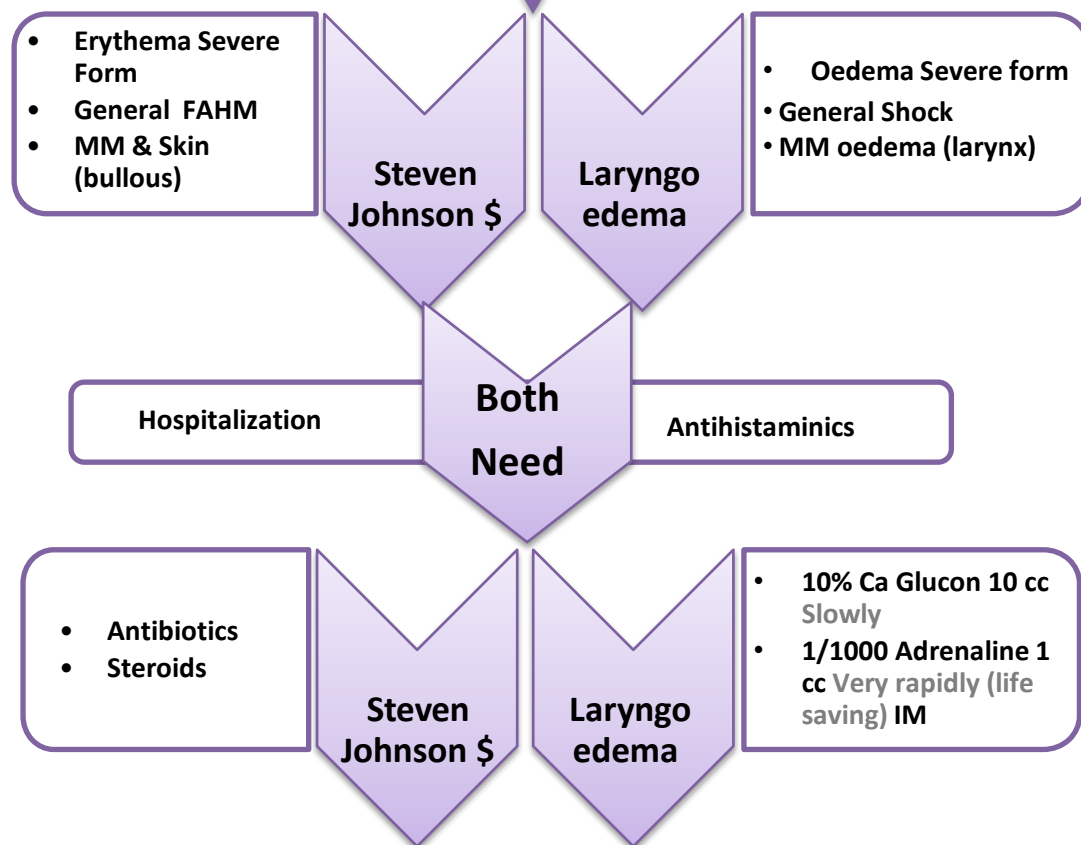


	Eczema	Urticaria
Site	Epidermis Edema	Dermis Edema
1ry Lesion	Papulo-vesicular	Wheal
CCC	Ill-defined (x Discoid) Itchy (x p. alba)	Well defined Elevated Evanescent





Erythema Nodosum	Drug Eruption	Erythema Muliforme
•Panniculitis (Sub cut fat) •Bacteria & their drugs •Extensors Of Lower Limb (Shin of tibia) •Nodules •Bacteria are (Strept, TB & Leprosy) •Drugs are (Sulfa and cytotoxics)	•Muco Cut. Junction •Drugs (Sulfa & Sedative Analgesics) •Genitalia (Sex related organs) (Lips, Hands and Penis) •Patch •DRUG= •(D)osing related (start & Stoppage) •(R)=Recurrent •(U)V=Violaceous Patch •G= Genitalia	•Skin only •Viruses & their Vaccines •Extensors of Extremities •Iris Lesion = Halo of erythema + Multiple Forms in the center
All TTT By: Cause Avoidance + Steroids		



Hebra

هبرا واد خبرة .. عنده عقدة من مستشفى شبرا

adolescent = خبرة

LN & Atopy = عقدة

hospitalizaqtion is ttt = من مستشفى

Note

Both are on extensors

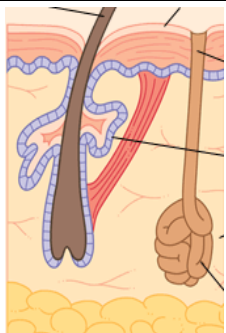
DD: Flea Bites & Scabies

(bothe escapes to hidden areas)

زخانيق ..

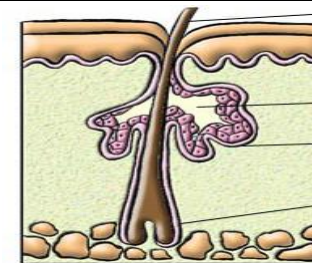
Sweat Gland

- **Eccrine**
- Open in skin surface
- In all body **except (labia minora, glands)**
- Not on M.M.
- Secrete copious H₂O
- **Formed of :**
- Coil in deep dermis, subcutaneous
- Duct through epidermis
- Open in skin surface



Sebaceous Gland

- **Holocrine glands**
- Ass. ē hair follicle (pilosebaceous unit)
- In all body **except (palms, soles)**
- secrete sebum , **Bacteriostatic + fungistatic**
- by rupture of glandular cells under androgen effect (Complete disintegration)
- In face, back, chest → voluminous hyperactive + vellus hair



Formed of:

Lobes in dermis →→, each duct, →→collect in common duct, lined by keratinized sq .epithelium
→→Open in hair follicles continuous with epithelium

Miliaria (Sweat Rash)

Acne vulgaris It s ch. Inflammation of sebaceous hair follicles (pilosebaceous unit)

PDF	1) Warmth 2)Fever 3) Occlusive Dressings		
Pathology	1) <u>Occlusion</u> of duct is the Initial event 2) <u>Rupture</u> of coils 3) <u>Inflammation</u> by sweat in surrounding		
C / P	Crystallina	Rubra	Profunda
	Occlusion at stratum corneum	intra epidermal	@ dermo- epidermal junction
	- Clear drops OR Vesicles + little OR No erythema	- Vesicles & papules + - Red halo OR Diffuse Erythema	

- 1) Puberty 2) Male = female 3) Oil (lubricant)

Aggravating factors : Corticosteroid therapy ,isonicotinic ,iodide ,vit B12 ,phenol

PDOCI Δ يدوس : **PUberty**: hyperresponsive gland →→ increase sebum , bacteria

A- 1) **Defective cornification** as sebum **deficient in Leinoleic acid**

2) **Occlusion** dt hyperkeratosis

B- 1) **Colonization of propiono bacterium acnes** →

2) **Inflammation** dt lipase secreted by p. acnes

- Anaerobic - ↑ at puperty
- Secrete lipase → Inflammatory Response (i.e.: Papules – Nodules – Pustules)

Pleomorphic :

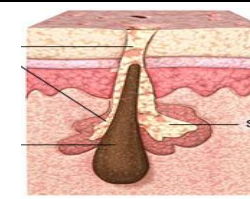
Papules, pustules, nodules, cysts (**No vesicles**)

Primary lesion is **comedon** dt (A) + inflammation dt (B)

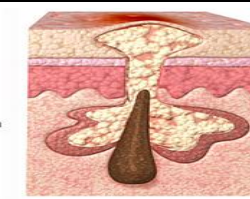
Closed: White Head

Open: Black

⊗ Post acne scars may occur.



Open Comedone



Closed Comedone

ttt	Mainly self limiting disease *Ventilaion * Cold water compresses * Anti biotic if infected (Miliaria Pustulosa) ACNE TTT : LOCAL : AB X 2 Δ a) For occlusion 1) (A)zaleic acid 2) (P)eeling (sulfur 2% ppt in calamine lotion ,retinoic 0.05 %,salicylic 3%) b) For inflammation 1) (A)ntibiotic : Clindamycin- Erythromycin 2) (B)enzoyl peroxidase : hydrogen peroxidase (anerobic → aerobic) SYSTEMIC : TRAPED for severe Δ 1) (T)etracycline:500 mg twice \day (FIRST LINE OF ttt) ≠ in pregnancy, children , instead →→Doxycycline 2) (R)etinoids "isoretinoids" :0.5 mg/kg\day →→ in severe nodule, pustule, ≠ in pregnancy (should receive contraception) ⊗ H2MLT : Hair loss, Hemato bleeding, Muscle cramps, Lip crackles , Teratogenic 3) (A)nti (a)ndrogen (cyproterone acetate) if female pt (moderate →→severe) مش معقول هتديه للرجال 4) Post acne scar →→laser, chemical (P)eeling, 5) (D)ermabrasion (laser or Chemical)
-----	---

Key is A & C → end by N (Nodule)

Androgen – Cornification

Accumulation – Comedone

Anaerobic – Corynebac

Lipase Action:

1- **Triglycerides** → **Free F.Acids** → **Chronic Inflammation.**

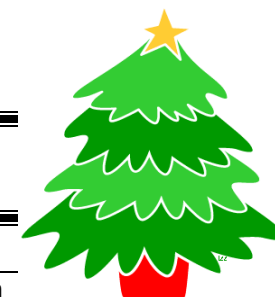
2- **Chemoattraction** for inflame. Cells.

N.B.:

- ABs Full dose → Bacteriostatic
- Subtherapeutic dose → Antilipase

Erythematousquamous Eruptions

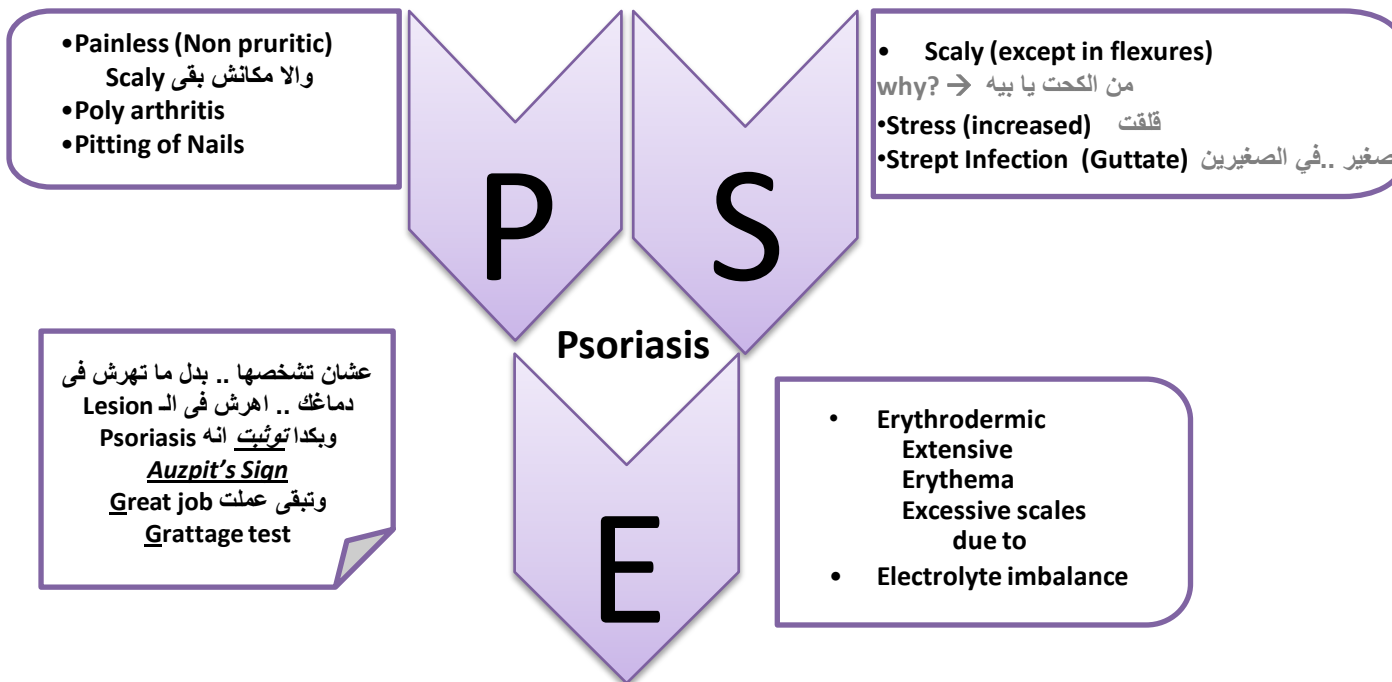
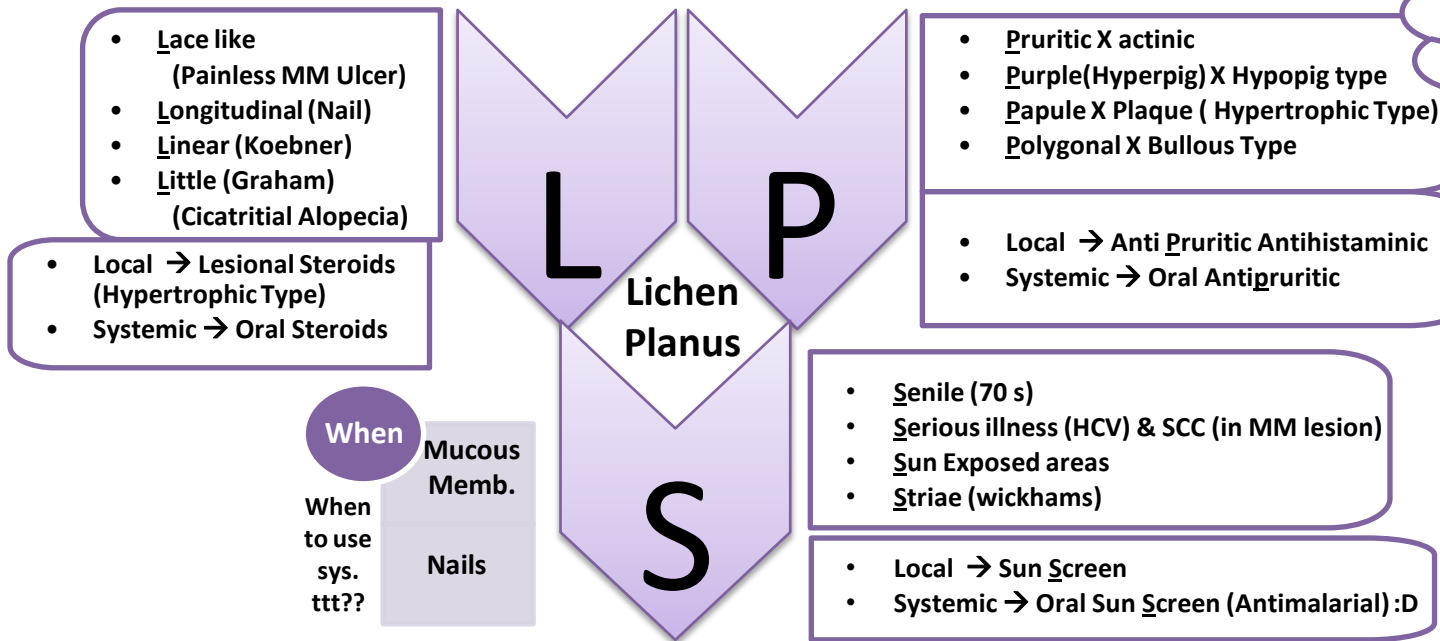
	Psoriasis	Lichen Planus	Pityriasis Rosea
Patho.	Chronic , inflammatory, non infectious ... unpredictable course Activated T cell ... ↑epidermal proliferation 20 folds ☺ PDF: من بره بره - Trauma: after 1-2w (Köebner) - Climate: ☀, heat beneficial من بره لجوا - Infection: Strept sore throat Guttate - Drugs: Steroids antimalarial فوق و تحت - Stress: imp factor - Hypocalcemia: Ca ⁺ control proliferation - Endocrinal: puberty or menopause, Pregnancy is beneficial ☺ 📦 Food has no role, 3 times more common when parents have disease 30% +ve FH	Acute or Chronic inflammatory ...duration usually >6m, ttt has little effect. poor prognosis: acute, guttate, hyperpigmentation 💣 * Viral: associated HCV 🏠 * Automimmune * Trauma	Acute rare recure Self-limited papulosq. eruption Exact unknown, suggested viral in spring, autumn •Clinical variants: Abortive: Herald patch not followed by rash Inverted: face + limbs affected, trunk spared Rash: +back follow cleavage lines ChristmasTree
Site	According to type الاشهر : extensor surface , elbow, knee, sacral, scalp Palm in Pustular - Trunk in Guttate Face usually spared 📦	Skin: flexor surface wrist, Forearm, Leg, Genital +MM+ Hair+ Nails	Mainly on trunk .. anterior of chest & Neck
C/P	Disease of ADULT expect napkin, guttate +ve FH	30-60y	More in Adult female 10-35y
Complaint	Bilateral symmetrical. Asymptomatic mainly disfigurement Itch if Flexural	Marked Itching in form of rubbing	asymptomatic +/- mild itch
	Papules coalesce into sharply defined plaques: Erythematous Salmon Red +covered silvery laminated scales Exceptions: Scales ↑scalp, erythrodermic Scales ↓Flexural Smaller drop like: Guttate 	Papule: Violaceous or purple - Dry flat topped itchy shiny Whitish striations Wickham's Striae - Seen by Magnifying lens 	Papule solitary enlarge .. oval patch Fine collarette of bran like scales - Clear light brown center = Herald patch 1st 2nd Rash "Eruption": 1-2 w after 1st - Erythematous macules or maculopapular - covered by fine scales enlarge oval as herald
Fate	Dilate capillary in dermal papillae acanthosis, parakeratosis, collection PNL in upperdermis	Hyper pigmentation, Cicatrical alopecia	Spontaneous heal 6-8 w - hypopigmentation
	Psoriasis	L. Planus	
•Shape AL+2 △	Annular : preipheral extension central involution Linear : with Koebner Geographic : on large area curved Discoid	Annular Linear Bullous	
•Site NFS+1 △ Nail, scalp	Nail : Pitting M/C , Transverse striations , sub ungual hyperkeratosis Onycholysis Scalp : Scales diffuse or plaque Flexure : ↓ or Absent scales + Itching Palm : Yellowish white or brown Hyperkeratotic	Nail : Pitting, Longitudnal striations , shed DD nail psoriasis Face Actinicus ☀ exposed: Macules Asymptomatic Scalp Plano Pilaris : Hair follicles. Cicatrical alopecia "Garham Little" MM Buccal : Patches, lines, ulcers turn Pre Malignant SCC	
•Severity	APE • ARthropathic : Articular oligo/poly affect DIC Pustular : Palm , sole maybe late Pregnancy Erythrodermic : Extensive , Erythema +scales dt Electrolyte	•Acute •Atrophic Hypertrophic : Nodule on shin of tibia thick pruritic	
•Age	Infant : Napkin "H" Child : Guttate better > APE 📦 small drop like 📦 on trunk, after strept inf. "I"	Adult : Ch plaque psoriasis	
•Association	GPE Guttate : after strept infection Pustular : Pregnancy Erythrodermic : Electrolyte : hypoca		



Types of Psoriasis	Guttate	Flexural	Localized	Erythrodermic	Arthropathic	Pustular	Chronic M/C
Age All in adult except napkin, guttate	child, young adult	adult	Palm, scalp, nail → adult Napkin → infant	-----	-----	Last trimester of pregnancy	
Site	Trunk small drop like	Intertrigo Groin, axilla, submammary	Scalp: Nail	Whole body	Polyarticular DIP affected	Localized palm & sole	Discoid, annular, linear → extensor surface
Shape and size	"Got Strept infect."	Itchy, Absent scales :moisture	Napkin: linear or koebner	Generalized erythema scaliness	-----	-----	Geographic → Back

	Psoriasis	Lichen Planus	Pityriasis Rosea
Treatment	Steroids "topical, interlesional #systemic increase severity" + scales ttt a- LOCAL : △ TAR X 3 : ● ترطيب for scales: emollient or keratolytic: salicylic 2% ● Tar: antiproliferative: crude coal tar 2% ☹ bad odor, stain clothes, #face, flexures, genitalia 🚫 ● Topical steroids: ☹ avoided in face, flexure, young 🚫 twice daily ☹ atrophy skin, telangiectasia, contact dermatitis Interlesional: Nail ### SYSTEMIC STEROIDS 🚫 ### Ketoconazole 🚫 ● Anthralin "Calcipotriol": antimitotic ☹ irritant, stain, avoid in "++pustular, erythrodermic ● Analogue Vit D: antiproliferative, stimulate keratinocyte differentiation ☹ expensive, irritant, hyperca⁺ ● Antibiotic : only with guttate ● Retinoids "Tazarotene gel" local latency period 10 day ● Rays UVB: with Tar Goekerman technique or Tar, UVB, anthralin paste 0.1% Ingram ● Rays PUVA : 📢 سورالين Psoralen + UVA ☹ SCC, Hepatic cancer, aging skin, pigmentation, eye dis Relative #: melanoma, malignancy, irradiation, arsenic, cataract, cvs, renal, hepatic dis., immunosuppression Absolute #: pregnancy, lactation, Lupus eryth., albinism * Slow response psoriasis extremities * other: Calcipotriol 🚫 b- SYSTEMIC: A: arthropathic P: pustular E: erythrodermic Indicated APE+ Severe extensive resist ttt+ dt Psychological stress △ MECBC ● Methotrexate: folic acid antagonist: used in APE.S 0.2mg/kg/w ☹ #    Most serious is Liver cirrhosis - after stoppage continue contraception 12 w 🚫 ● Etretinate: VitA derivative used in PE.S 1mg/kg/d ☹ ↑serum ChE +  ● Cyclosporine : selective immunosuppressant : used in S ☹ hypertension+  ● Combined : etretinate + PUVA ● Biological : TNF	Steroids "Any type" + Itching ttt or sun a- Local : ● Steroids a- Topical b- Intra lesional : hypertrophic ● Sun screen: actinicus b- Systemic If 1) Extensive involvement 2) Ulcerative MM 3) Scarring dystrophy ● Steroids : severe cases ● Sun: Antimalarial: systemic photo protective: in Actinic ● Itching : antihistaminic	1) Reassurance: Asymptomatic self limiting 2) Avoid irritant 3) Soothing lotion + moderate topical steroids #Grisoflavin steroids/itch D.D Pytriasis Rosea ● Tinea Circinata Herald patch ● Guttate psoriasis ● 2ry Syphilis Rash 🚫 ● Pityriasiform drug eruption Gold, barbiturates D.D Genital Lichen planus ● Psoriasis ● Scabies NB: P like reported in Dog D.D Generalized Lichen planus ● Guttate psoriasis ● Pityriasis Rosea Lichneoid drug eruption: color film processor, gold, antimalarial, streptomycin, Paramino-salicylic acid D.D Plaque psoriasis ... Hypertrophic Lichen D.D Guttate ... Pytriasis + Generalized lichen D.D Scalp ... Seborrheic dermatitis D.D Nail ... fungal infection P. Rubra Pilaris: 🚫 Diffuse erythema, scaling without hair fall, follicular hyperkeratotic papule on trunk,
Invest. D.D	● Grattage test : scrap lesion to remove scales with glass slide edge till thin membrane seen, remove it, pin point hge appear: Auspitz Sign ● Biopsy and Histopathology		

ERYTHEMATO-SQ ERUPTIONS



Psoriasis TTT

Topical **PS**:
PUVA
Steroids

Anthralin (Topical Vit A)
in **A**:
Actinic, Active & Asymp

Keratolytics : Salicylate

• Emollients :

Local
(TAKE)

T

A

K

E

Systemic (Chemo)

Methotrexate

Side Effects:
Organ >> Hepatotoxic
Blood>> BM fibrosis

Cyclosporine

Side Effects:
Organ >> Nephrotoxic
Blood>> HTN

Eterinate
قطران

Side Effects
Organ >> Teratogenic
Blood>> Cholesterol inc.

When to use sys. ttt:
Metastatic like → Arthropathic
Severe local → Pustular
Severe systemic → Erythrodermic

CONNECTIVE TISSUE DISEASES

The inflammatory disorders of connective tissue often affect several organs , as systemic lupus erythromatosus (SLE), but they may also involve the skin alone , as in discoid lupus erythromatosus (DLE). Autoantibodies and cell mediated immunity against normal cellular components (eg. nuclei) (i.e.: ANA) are a feature of these diseases ,, which can thus be regarded as “**Autoimmune**”

So L.E. = Inflammatory | Autoimmune | C.T. Disorder

Etiology:

- Genetic predisposition
- Precipitating factors :
 - Sun exposure
 - Physical trauma
 - Mental stress
 - Infections
 - Drugs
 - Pregnancy

LUPUS ERYTHEMATOSUS (LE)

Acute Cutaneous (ACLE)= SLE →	Serious multisystem disorder that involves vascular and connective tissues
Subacute Cutaneous LE (SCLE) →	Subacute between ACLE and DLE
Chronic Cutaneous LE (CCLE)= DLE →	• Confined to skin • Age : 3rd and 4th decades • Sex: female : male = 2:1

DLE → Lesions are sharply demarcated , coin-shaped (discoid) erythematous plaques covered by a prominent , adherent scale that extends into the orifices of dilated hair follicles (horny plugs or follicular plugging)

خدودها حمرا من الـ Erythema .. (Telangectasia-like) .. وعليها قشرة رخمة اوى ... لازقة جامد وكمان بتعمل Scar

• Distribution:

1. **Localized DLE**: affects scalp , butterfly area of the face , ears , V- shaped area of the neck & dorsa of the hands.
2. **Disseminated DLE**: widespread lesions above & below the neck

- **Healing with thin atrophic non contractile healthy stippled Scars.** (Lupus Vulgaris Scar عكس الـ)
- Remission in **40%** . Internal involvement not a feature only 5% develop SLE.



DD. : ► Lupus vulgaris : ccc scar ► Psoriasis :ccc scales

• Management of DLE:

Local: Sun protective measures and broad spectrum sun screens.

Potent topical steroids.

Systemic: *Oral antimalarial* therapy for widespread disease

Hair

Found in all body except **GLAMPS** △: glans penis - libia minora – lip – lid – areola - MM- palm - phalanx (dorsum of distal)

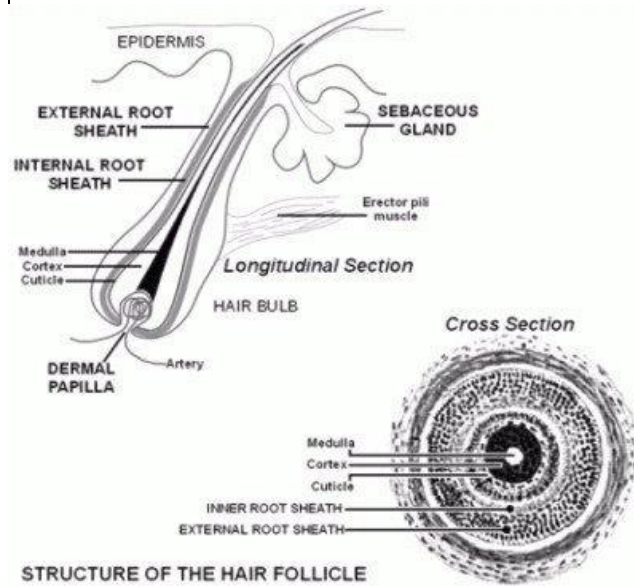
scalp hair growth at a daily rate of about 0,35 mm - finger nail 0,1 mm 📏

Appear : 9th Week (Embryonic life) as epithelial buds from epidermal basal cells – **No neogenesis** of hair follicles after birth – **NO continuous** growth

Structure : outer root sheath – Inner root sheath – Hair shaft → [outer cuticle + Cortex (=Packed keratinocytes) + inner medulla]

Types			Stages “ACT” △		
Lanugo : Thin – Soft – Long - Unmedullated – Unpigmented Cover Fetus prenatally, shed 1m before term , 2nd shorter lanugo in Full term infant.	Vellus : Thin – Soft – Short – Unmedullated In Youngster	Terminal : Thick - Dark –Long - <u>Medullated Pigmented</u> In Adults (Differentiation is stimulated at puperty by Androgen) Scalp.brow, lashes, bread,axilla,pubic	Anaphase (3y) Active = Growth 84% of scalp hair	Cataphase (3w) Resting (Transitional) 2%	Telophase (3m) Club Stage = before shed 14% (N.B.: 50-100 Telogens Lost/d)

ALOPECIA = loss of hair



Cicatrial
Tiit - LPC تيت البس

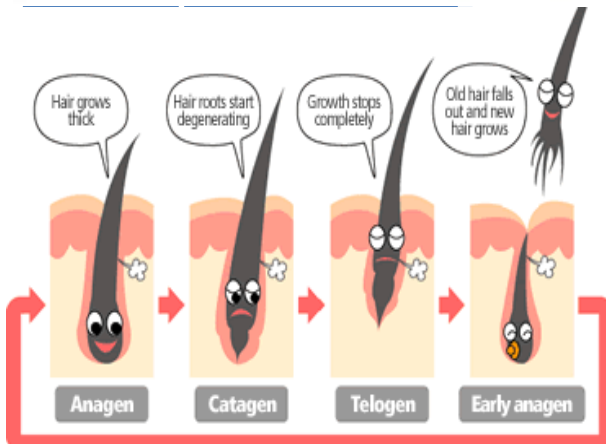
- Trauma : physical "burn" - mechanical - chemical
- Infection: viral "HZ" - fungal "favus,neglected kerion ,syphiltic gumma"- lupusV"
- Idiopathic
- Tumors as basal cell carcinoma
- Lichen Planus (Lichen Planopilaris)
- Collagen: DLE - scleroderma

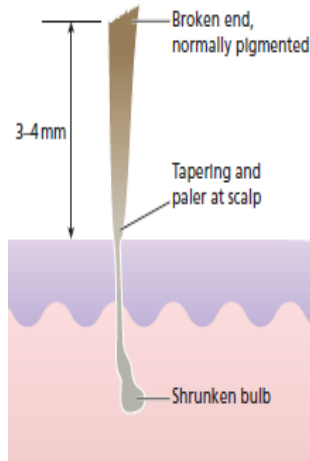
Diffuse Non Cicatrial
DADS

- Drug : cytotoxic,DGP,Heparin,Antimitotic:methotrexate,Thyuracil, excess vit A 📏
- Anemia- malnutrition
- Debilitating disease
- Stress :telogen effluvium • Psychogenic
- Endocrinal : hypo & hyper thyroid

Localized Non Cicatrial
CATS

- Tinea capitis “scaly-black dot”
- Androgenetic (Male Baldness)
- Trichotillomania
- Telogen effluvium
- Syphilis Moth eaten in 2ry stage



Alopecia areata (M/C)		Male Baldness (+/- in ♀) = Andro-genetic alopecia	Trichotillomania (Tractional Alopecia)	Telogen effluvium		
• autoimmune “most accepted” • +ve FH 10-20% ,psychological , • reflex irritation dt focal sepsis often seen in first few months of infancy cause loss of hair is synchronized to telogen phase 📌		• <u>Androgen dependant</u> – Inherited • affect Androgen sensitive hair • Terminal hair turns → vellus • At 2nd decade.	* Compulsive plucking of own hair in neurotic individual * OR traction from tight rollers	Any Stress: • dt fever • or pregnancy • or labour After 4 months from stress -		
Scalp(m/c) – bread- moustach – eye brow - Types: 1- Patchy (M/C) 2-Totalis: Whole Scalp 3- Universalis: Whole Body Surface تعرفه من وشه، مغيث شعر، مغيث حواجب، مرفيش رموش 		1st :Bitemporal recession → Bald crown Affect: Frontal – parietal - crown Never occipital- temporal <u>N.B.:</u> In ♀ → hormonally normal (only ↑ sensitivity)	At scalp margin Incomplete hair loss	Premature transformation into telogen so All shed hair in telogen phase Diffuse not total <u>Good prognosis:</u> in 3-4 m regrowth occurs (Reversible)		
AREATA : • Sudden loss of haor – asymptomatic – single (maybe Multiple) • completely normal scalp (no crusts or scales) • Exclamation mark hair: thin proximal thick distal indicates progression • NO hair roots or stumps in area = Complete Loss • thin fine colorless hair in area indicates regrowth • Poor Prognosis if:1) Prepubertal 2) Extensive 3) Atopy 4) Posterior scalp involvement - D.D.: Other causes of localized non-cicatricial alopecia						
Treatment areata			Treatment baldness			
Topical * Topical Steroids (or interlesional) * Contact allergen as DNCB * Local irritant : tincture iodine , capsicum		Systemic *steroid If extensive	Phototherapy * Topical PUVA * UVB	Reassure + ttt PDF As Septic foci Error of refraction 	Topical : Minodxil 2-5 %	Systemic :Anti-androgenic In ♀
Hirutism : terminal hair in areas don't contain hair in normal ♀ , The majority of cases of hirsutism have no other apparent abnormality 📌 Hypertrichosis : excess body hair Poliosis is apatchy hypomelanosis of hair 📌						

Pigmentary diseases

Melanocytes Dendritic cells in **basal epidermal** layer found in **HEM** Hair, **E**pidermis, **E**ye **retina, uveal tract** 📌, **E**ar inner **cochlea and vestibular labyrinth** 📌, **M**eninges **leptomeninges** 📌

Highest distribution : Back, Leg

1) **Melanogenesis**: tyrosine to Melanin by tyrosinase **inside melanosome** of melanocyte "membrane bound bodies" 2) **Transferred** & distributed to surrounding keratinocyte
 ◆ **Albinism** autosomal recessive disease ccc by the absence of melanin in skin, hair, eyes. Melanocytes are present but not functioning dt absence of tyrosinase enzyme

◆ **Nevus anemicus** : it's congenital anomaly of skin, ccc by macule areas of pallor inspite of having a normal melanin pigmentation . it s dt decreased blood flow

HypoPigmentary disorders

Local : IVP △

- 1- Post **Inflammatory** : **Psoriasis**, **Pityriasis rosea** **HyPo**
- 2- **Vitiligo**
- 3- **Pytriasis alba**
- 4- **Pytriasis versicolor**
- 5- **Tuberculos Leprosy**

Systemic :

- 1- Vitiligo
- 2- Albinism
- 3- Hypopituitarism

HyperPigmentary disorders

Local : INC △

- 1- Post **INF** : **Lichen Planus**, **Eczema** **Hyper**
- 2- **Cholasma**
- 3- **Nevi**
- 4- Drug " **TOCE** توك " : **Tetracyclin**, **OCP**, **Chloroquine**, **Estrogen**

Systemic : ↑ ACTH

- 1- Cushing (trunk, upper limb)
- 2- Addison (Buccal, scar, creases)

Vitiligo 1-2% of world population 📌

causes Acquired idiopathic, suggested theories :

- **Autoimmune (+ve FH 30-40 %)** other auto immune diseases: DM, thyroid, pernicious
- **Neurogenic and psychogenic**: toxic substance to melanocyte from nerve ending
- **Self destruction** of melanocyte

No cell No Melanin

♂ = ♀ between 10-30 Y 50 %

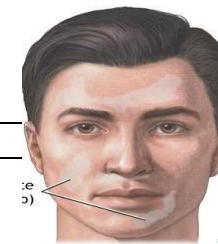
- c/p**
- Gradually Progressive
 - **Milky or Chalky white**, **Non scaly**, Well defined macule or patch
 - Hair in macule is white or pigmented
 - **Histopathology : absent Melnaocytes**



Cholasma

Acquired dt :

- Pregnancy
- Ovarian cancer
- OCP
- Idiopathic



♀ > ♂
 Well demarcated **Macules**
 Hyperpigmented
 Self limiting

DD: Post Inf. - Actinic Lichen planus

Site • Hand • Wrist • Neck • Knee • Around orifices • Sun exposed : • Forehead • Chin • Upper lip • Nose • Cheeks

Fate **Unsatisfactory** ☹️ **Spontaneous recovery** 😊

Topical

- Steroids

Systemic

- Steroids

Surgical

- Tattooing (micro-pigmentation)
- Auto grafting

Phototherapy

- PUVA (320-400) + 8 Methoxy-psoralen
- UVB (311-313) **Narrow band**

Risk factors

- Avoid sun
- Stop OCP

Topical

- **Sunscreens**: camouflage cosmetics مستحضرات تجميل لاختفاء العيوب
- **Chemical peeling** by trichloroacetic in **resistant cases**
- **Azelic acid & hydroxychloroquine**: ↓ melnocytes activity
- Also used in universal vitiligo to remove residual color of normal skin

📌 **Orally ingested psoralen (Meladinin®)** mainly metabolized in liver, mainly excreted in urine 📌

📌 **The face is the first site to respond to Psoralens therapy**

📌 **Peak serum levels of oral Psoralene reached approximately 1-6 h after ingestion**

📌 **Psoralens have been found in lemons an limes, Parsely, Celery, Figs and Cloves**

📌 **Syphilitic leukoderma** : residual manifestation of 2ry \$ rash on sides of neck

📌 **Leukoderma can develop in doctors from using gloves, in farmers from using phenolic disinfectants**

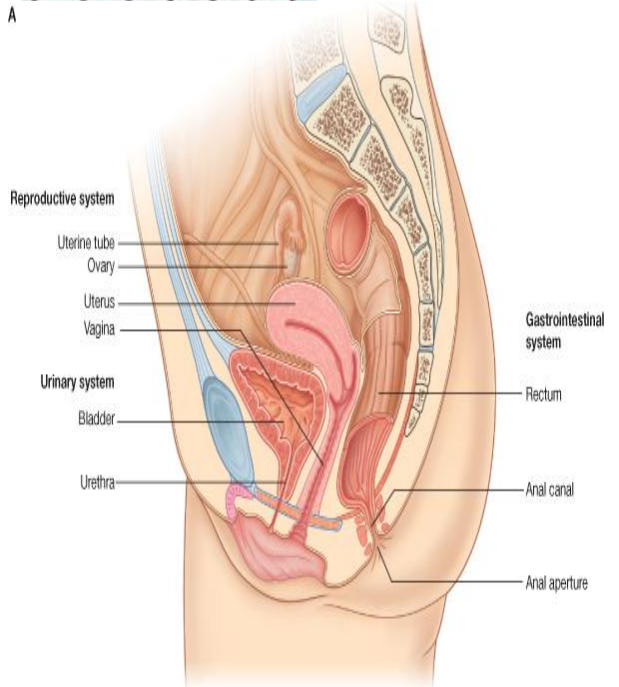
Male Urethra 20 cm from bladder neck to Ext meatus

Posterior		Anterior “Penile””spongy”	
Prostatic	Membranous	Bulbous	Distal = Pendulous
3 cm	1.5 cm	15 cm	
Transitional epith. “SCT”		Columnar proximally N.B like rectum St. Sq distally at “FOSSA navicularis”	
All urethra lined by Trans epith except Penile (col.) and fossa navicularis (st. sq.)			
•Ejaculatory duct •Prostatic acini open in it	Surrounded by Copwer’s	Copwer’s open in it	- Littre’s gland - Paraurethral open in it
Surrounded by prostate	From Apex of prostate to Bulb of penis M-AB	From ▲ ligament To penile Angle BTA بطة	From penile Angle To Fossa navicularis DAFN دفن
PMP: Posterior : Membranous-Prostatic		ADB:: Anterior- Distal- Bulbous	

Female Urethra

ست سكية ST

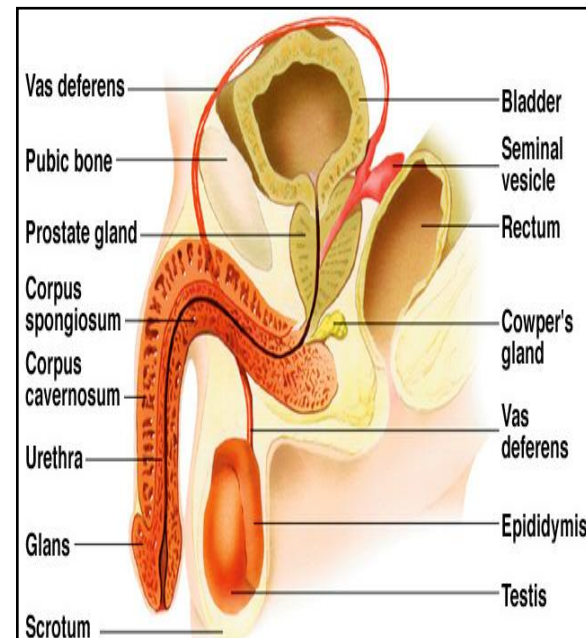
- 4 cm
- St. sq dital
- Transitional epithium proximal
- Skene's glands



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Urethritis

Gonococcal	Non gonococcal
By Neisseria gonorrhoea	• Sexually transmitted ✓ Chlamydia Trachomatis Mainly ✓ Mycoplasma and ureaplasma ✓ Trichomonas vaginalis • Non sexually transmitted : UTI • 2ry : Renal stones, Crystalluria, Catheter



Urethritis

		Gonorrhea ... ريبا وسكينة investigations اخذ كل ال	Chlamydia Trachomatis c/p اخذ كل ال	Mycoplasma and ureaplasma	Trichomonas Vaginalis
ORG .	Type	Neisseria Gonorrhea G -ve diplococci	G-ve	Bet. Rickettsia and Bacteria	Anaerobic Protozoa
	Shape	Kidney ... كبدية عليها كبدية عليها & causes perihepatitis	-----		Oval
	Site	Intracellular "PNL" Columnar and transitional <u>Adult ♀ : affect only cervix and urethra</u> Never affect St. Sq except young ♀ immature epith, poor glycogen, alkaline PH...vulvovaginitis D.D in young girl: candida, foreign body, worm infestation	Intracellular * <u>Elementary bodies</u> : infective * <u>Inclusion bodies</u> : replicate		
	Motile	With Fimbria (Pili) .. ما جات رجليها	-----		Motile ...jerky irregular كلاي
	Mortality	Die with Dryness , Antiseptic, ☼ Rapidly	-----		Live In moist 24 h
	Genetic s	-----	DNA and RNA	DNA and RNA	
	Grow	-----	* <u>Yolk sac</u> *Chick embryo Never grow at artificial culture	Grow in artificial culture	
IP		IP 2-5 days	IP 2-3 weeks		
Mode of T		Sexually " <u>oral, rectal, vaginal</u> ", newborn, <u>child girl: any oute...thermometer, toilet, bed, towel, sex play</u> 🚽	Sexually , new born		Sexual, non sexual
C/P Urethritis		♂ :Ant. Urethritis اصفر - Profuse <u>purulent</u> - yellow discharge If neglected 2 w then progress posteriorly - Dysuria - Frequency -Urgency ♀ :Scanty discharge (Prostitutes are the carriers...having Minimal Symp)	♂- ♀ Mucoid or Mucopurulent discharge	♂-♀ Urethritis	♂ Asymptomatic Or Mild tickling ♀ Urethritis Offensive discharge
Other		Proctitis: Pruritis, Pain, tenesmus, Discharge ♂ <u>dt rectal sex</u> - ♀ <u>dt running pus or perianal contamination</u> 🚽 Oropharyngeal: sore throat, tonsillitis (oral sex) Conjunctivitis: from direct contamination Ophthalmia neonatorum: Newborn +infected mother Ophthalmia Cause blindness 30% ttt: antibiotic drops 🚽	Neonatal : <u>conjunctivitis, pneumonia</u> , otitis media		Vaginitis RED Vaginal wall + <u>red spots on cervix</u> Strawberry cervix فراولة Dysuria
Complications <u>Rare in gonorrhea 1.2%</u> <u>But common in ♀: 10%</u>		• Prostatitis: Acute or Ch ... وأنا (الراجل) ايه نثبي >10pus cells HPF +clumps • Gland :litre, Cowper's , paraurthral, seminal vesicles Hemospermia+pain ejaculation لايسالي <u>المنديل البيمبي ...</u> • Balanits or Balanposthitis(Prepuce) • Disseminated <1% : fever, rash, joint pain P2+gland PID + Bartho + Skenitis .. سكينة	PURE I Δ Prostatitis: Urethral stricture Reitier Epididymitis IN fertility CPBSA Δ الام الطفل Mainly Cervicitis Pelvic inf. Disease Bartholinitis Still birth Premature labor Abortion	PURE I PBSA	-----

Investigation	CSI A △ “crime scene investigation” Culture: cholocolate agar , Thayer Martin ... قطيعة ما حداث بيشخصها بالساهل Oxidase+, glucose fermenter, acid producer, Turn phenol red to yellow Smear : discharge acute, morning drop☀ complicated , night urine contacts Radio Immuno assay (RIA) most sensitive test detect Ab to fimbriae .. ريا .. Antibodies - Antibiotic sensitivity: disc method ♦ Gram stain enough to Start ttt 📌 ♦ lf -ve ♀ : repeat every week for 4w ♦ ♀ sample taken :urethra ,vulva , vagina , cervix	Immunofluorescence Antibodies by micro imnnuofluroscnce + DNA by PCR + Isolation living cells	Culture Smear : Papa.ni.colou stain كولا + Direct microscope wet mount preparation posterior vaginal sample DARK FIELD 📌 Most important is : Hanging Drop technique
Treatment	1) Abstain alcohol and sexual intercourse ... دة احنا هنريحوكي 2) Systemic antibiotic * Penicillin - Procaine penicillin 4.8 million IM at 2 diff. sites 📌 Tetracyclin in young girl - Ampicillin 3 gm single dose or Amoxicillin 3 gm single dose * Spectromycin 2gm/single * Ceftrixone 250 mg/single * Quinolones 400mg/single 3) Follow up No discharge on 3rd day	• Tetra Cyclin 500 ...1x4x14 • Doxycycline 100 1x2x14 • Azithromycin 1 gm single... • Erythromycin for pregnant • 📌 ♀ needs longer course of ttt • ♂ has additional genital sore : streptomycin, kanamycin, trimethtoprim till results • Recurrent attacks = recurrent infection ♦ failure ttt lead to asymptomatic carrier or complicated case	Anaerobic Metronidazole 250 ...1x3x7 Or tinidazole

DD. Of syphilis chancre

	Chancr(oid) (Soft sore) (Ds)	Lymphogranuloma Venereum (Ls)	Granuloma inguinale (Bs)
Organism	Haemophilus (D)ucreyi , G-ve bacilli	Chlamydia trachomatis (L)1,2,3	Calymmato (B)acterium Granulomatis
IP	4-10 days	1-4 weeks	2w-3m
C/IP	Papule	Multiple. Soft .erythema around .then pustular	Painless, non indurated, pass unnoticed
	Ulcer	Tender , painful (Sore)	Papule or vesicle on penis ...heals quickly
	DD of \$ chancre	Edge : Ragged (D)istorted Undermined	1ry lesion : (B)utton like papule or nodule
	LN++	Base : Soft -Easily bleeds (D)irty	Ulcerate quickly
	LN++	Unilateral , painful, matted, suppurate, Abscess fuses and open with sinuses	Regional , painful, matted, suppurate, Abscess fuses “Buboes” and open with sinuses
	Other	No Vesicles	1ry there may vesicle or papule (L)ost Ulcer (Transitory) ♂: inguinal glands : Chronic >>(L)ymphatic obstruction+ elephantiasis genital ♀: Perianal :Painful proctitis +bloody discharge Chronic >>Rectal stricture
Investigation	Culture Smear of genital ulcer PCR- Biopsy	- Culture Tissue for(L)N - Micro Immuno fluorescence (serology) - PCR- Biopsy	Smear :Wright or _____ with Donovan (B)odies “appear as safety pin- like “in mononuclear cells -Biopsy:
Treatment	Azithromycin : 1gm 1 dose Ceftriaxone: 250 mg 1 dose Ciprofloxacin: 500 x2 /d for 3 day Erythromycin : 500x 4/d for 7 day	Tetracycline or sulphonmides in acute phase Little effect if chronic complication started NB: D-K serotype cause non specific urethritis	Tetracyclin or cotrimoxazole (3 w)

Syphilis

Org	Type	Shape	Motile	Mortality	Grow															
	Treponema pallidum "Spirochaete"	Spiral	Corkscrew	Die with dryness , antiseptic, ☼	Don't grow on any media, not easily stained , dark microscopy															
Acquired 1- Sexual intercourse (M/C) through contact lesion 2- Blood transmission 3- Contact (toilet, on examining)																				
C/P	Primary acquired 9-90 day local tissue reaction		Secondary 4-6 w from 1ry dt enter blood stream		Tertiary 3-7 y from 1ry dt Allergic reaction															
	1) Chancre "papule then ulcerate" - on genitalia (M/C) lips tongue finger - Painless except 2ry infection - single * - Indurated base due to granuloma at base - Sloping edge raised periphery slope to center - Spontaneous heal 2-6 w thin atrophic scar - Clean floor never bleed dt EAO 2) Regional LN++ : - bilateral *, - painless, - discrete - firm and rubbery, never suppurate		1) Snail track ulcer 2) LN++ : - Generalized - painless, - discrete - firm 3) Rash "great imitator" - Bilateral ,symmetrical, - widespread even palm and soles - non itchy - polymorphic but never vesicle 4) Alopecia: - Patchy, Moth eaten - irregular, -non Cicatricial 5) FAHM ,CSF changes , iritis ,Hepatitis, nephritis , edididymitis, Mucocutaneous, bone,joints 6) Condyloma lata VVVVimp 🍌🍌 <table><tr><th>Condyloma Lata</th><th>Accuminata</th></tr><tr><td>Treponema P. \$</td><td>Human papilloma V.</td></tr><tr><td>Flat moist</td><td>Rough verrucous</td></tr><tr><td>Sessile</td><td>Pedunculated</td></tr><tr><td>Indurated</td><td>Soft floor</td></tr><tr><td>No (EAO)</td><td>Easily bleed</td></tr><tr><td>+ve dark micro.</td><td>-ve</td></tr><tr><td>+ve serology</td><td>-ve</td></tr></table>		Condyloma Lata	Accuminata	Treponema P. \$	Human papilloma V.	Flat moist	Rough verrucous	Sessile	Pedunculated	Indurated	Soft floor	No (EAO)	Easily bleed	+ve dark micro.	-ve	+ve serology	-ve
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Congenital																				
From mother to baby																				
Max. risk: if maternal infection < 2y																				
Least risk : if mother is in late latent																				
➔ Fate cong. Syphilis																				
1- abortion 12-16 w (<3m not specific to \$)																				
2- still birth																				
3- born with \$																				
4 -escape infection																				
5- early or late congenital																				
1 ^{ry} stage																				
Placenta : pale bulky heavy greasy with infarcts Why ?EAO																				
Early congenital:2ry like ..>2y																				
Rash :																				
- Vesiculo-bullous mainly																				
- Cause linear fissures perianal, perioral , perinasal heal by linear radiating scar called Rhagades																				
- Purpic rash dt thrombocytopenia																				
Late congenital:3ry but: 5y-30y																				
• راسي Facies: Frontal bossing																				
• مناخيري Saddle nose-																				
• مقامی High arched palate-short maxilla																				
• سنانی Hutchinson teeth: serrated, widely separated, appear >6y, peg shaped																				
• متعلم علیا Rhagades :linear radiating scars																				
• صوابی Clutton joint:synovitis, effusion, painless, preserved movement																				
• بولی PCH: dark urine, chills, bony pain																				
• سيف Sabre tibia :periostitis new bone deposition on ant. Tibia																				
• Hutchinson triad: teeth+CN8 deafness+ interstitial keratitis(pathognomic)																				

Investigations:

1) Dark microscopy : Sample from LN... for 1ry and 2ry

3) \$ Serology

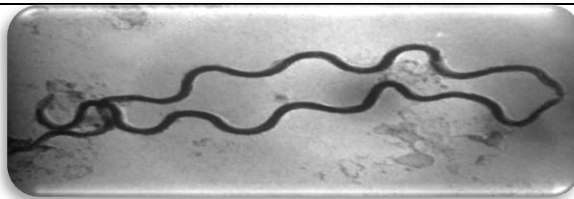
Non specific Abs : (Qualitative & Quantitative)

STS "Standard tests of syphilis"

A) VDRL "Venereal Disease research laboratory

b) "RPR" Rapid plasma reagin

- Highly sensitive ... Low specificity:
- give biological false +ve without syphilis, pregnancy, malignancy, CT
- used for screening ,
- monitor ttt response
- Rising titer activity falls with ttt= inactivity



2) CSF for neuro syphilis

Specific : Quantitative ONLY

stay FOREVER positive and titre poorly indicate activity

B)FTA- ABS IgM "Fluorescent treponemal antibody absorption " use Nichol's strains

- Highest sensitive **Between** specific
- Main use to know false +ve and Late S
- Earliest "1st" Specific become +ve during course infection
- Only test used for neonatal \$ as Igm cant pass across placenta

C)TPI : Treponema Pallidum Imbolization

- Highest specific
 - most expensive
- كل ما هو طبي و متخصص جدا ... غالى جدا

TPHA "Treponema Pallidum Heamagglutination

- Midway in sensitivity and specific between b and c
- التبة فى نص الطريق

Treatment:

General rules:

Bentazine penicillin "BP" is the best

- ✓ Before start ttt , u should have baseline VDRL , RPR
- ✓ Total dose of BP or PAM 12million unit
- ✓ Alternative erythromycin or tetracycline
- ✓ Side effects : **HEPA** هبة

1) **HeRxHeimer reaction**: 1st dose mostly 2^{ry} stage dt sudden release of TP Ag on killing organism... **Continue ttt add Systemic Steroids**

2) **Paradox**: ↑↑symptoms after ttt due to rapid fibrosis

3) **Allergy**: Stop ttt

- Bentazine penicillin 2.4 million units x **single dose IM**
- Tetra or Erthyro 500 4/D x15 D

- PAM or Aquous **P 400,000/kg divided over 10-15 days**

Early Acquired

Early Congenital

Late

Late

- Bentazine P 2.4/ w **x3 doses** or till max dose
- Tetra or Erythro 500 4/D x30 D

→ **Congenital Syphilis stigmata: marks remain for life** : 1-hutchinson teeth 2- interstitial keratitis 3- sabre tibia 4-rhagades 5- facies

→ **Acquired\$** :infectious cut lesions 1ry &2ry stage: a)termination & resolution

b) latent period (30% chronic \$ complication-30% benign 3ry- 30% persistent latent)

كان فى راقصة بالية . صغيرة و مبتكرش تتحب الضلمة و فى الشمس متخرجش

بالية pallidium

صغيرة Small size

مبتكرش Don't grow on artificial media

تتحب الضلمة dark microscopy

فى الشمس مبتخرجش Die with dryness & heat

اتجوزت واحد مش كويس

MOT : sexual intercourse

اولها خلاها بتشكىمتعورة و مكعبرة

اولها primary

تشكى chancre

متعورة ulcerate

مكعبرة LN++

و ثانيها خلاها متعورة و مكعبرة رشا بقت تتشد فى شعرها ومغبرهاش حنة مرش متأثرة

ثانيها secondary

متعورة ulcer snail track

مكعبرة LN ++

رشا Poly Morhic rash

alopecia Nov Cicatricial بتشد فى شعرها

csf changes, iritis , hepatitis , nephritis, bone, joints, MM كل حنة متأثرة

قالولها جوزك تاب ... قالت لا لا لا ...دا سيس ...و قلبه حجر و معندوش دم ولا أحاسيس

lata لا لا لا

sessile سيس

indurated baseقلبه حجر

no bleedingمعندوش دم

قالولها ادبله فرصة ...مش باين عليه من التاين ...بس عشان نتأكد لازم نستنى

سنتين.....يمكن نتوب و يبقى مؤمن ...يمكن يسوء و يبقى مزمن....

يمكن هيفضل على حاله ثابت ...يمكن يتنقل للمستوى الثالث

فرصة Latent syphilis : after secondary stage

no s/s مش باين

early : 1st 2 years can relapse نستنى سنتين

fate ...spontaneous cure يمكن يتوب

chronic syphilitic inflammation يبقى مزمن

persistent latent على حاله ثابت

3ry benign syphilis المستوى الثالث

و تالتها بقت متعورة ..ببشرة صفرة ...و ذكرى مرة

3ry تالتها

gamma nodule ulcerate

yellowish floor ببشرة صفرة

thin scar ذكرى مرة

قالت تخلف ...الدكتور قالها يا مدام عشان نكون مطمئن لازم نستنى سنتين

تخلف congenital

نستنى سنتين risk dec after 2 years of infection

با اما يا مدام ...العيل مش هيچى ...او يچى ميت ...يا يچى عيان و يتعب بعدين قريب او بعد سنين ..و

الجرى نص الجدعة

miscarriage مش هيچى

still birth يچى ميت

signs of \$ يچى تعبان

early congenital...weeks ...late ...after 5-30 years يتعب بعدين قريب او بعد سنين

escape infections الجرى نص الجدعة

فى الاول جابت رشا ...مكعبرة و متعورة ...و مغبرهاش حنة مش متأثرة ...يدلعوها رгда

early congenital ...like 2ry

رгда but heal scar Rhagades

Hutchin son و فى الاخر جابت واد ...ببوتش(كلامه متناقض)

انا دماغى كبيرة و مناخبرى صغيرة و حلقي مقوس و سرى مسوس...وشي مخربش بقى مكرمش

ركبي كويسة ..رجلي مقوسة .. برد خفيف ..يجيلي نريف ..

إلا مصرى اصل انا ابن النيل ...لا ارى لا اسمع لا اتكلم

Hutchinson سنانى- High arched palate-short maxilla حلقي- Saddle nose مناخبرى- Facies راسي

Sabre tibia رجلي مقوسة -PCH برد خفيف- Clutton joint: ركبي - Rhagades وشي مخربش-teeth

جوزها اتجوز عليها لما و فاطمة و دكتورة ...و عاشوا فى التبة

الست لما فتهيال بلازما...حساسية خالص و عاملة ازمة

ST (standard tests) الست

vRDL فنيرال

RPR plasma reagin بلازما

Highly sensitive low specific...false positive حساسة خالص

و فاطمة دبه ...مية مية قصيرة

فاطمة FTA (FAT IgM)

earliest specifichighly sensitive مية مية

neonatal قصيرة

دلثورة ...كل ماهو طبي و متخصص غالي

TPI طبي

highly specific متخصص

expensive غالي

التبة فى نص الطريق

TPHA midway in sensitivity & specificity

بلا نعالج علاج متين ...بالنيسلين يا هبة...لو حتلى بدرى ...مرة واحدة مش مرتين...

لو اتأخرت يا تلت مرات يا ثلاثين

best choice penicillin

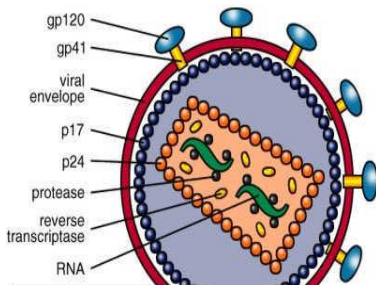
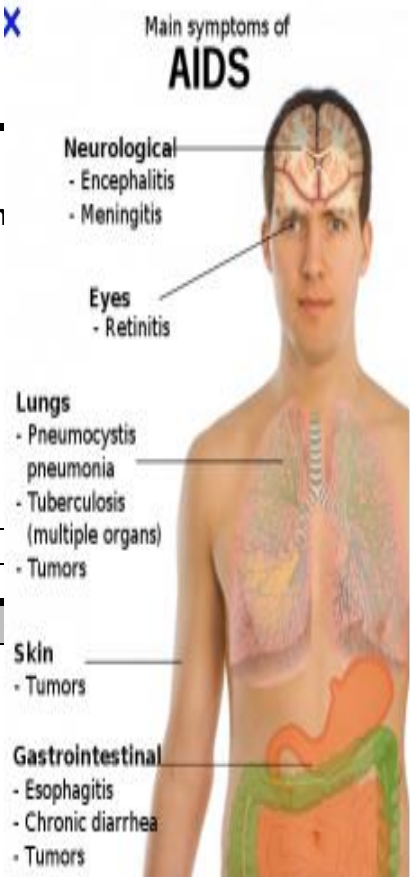
herxeimr reaction , allergy , pardox

early acquired single dose

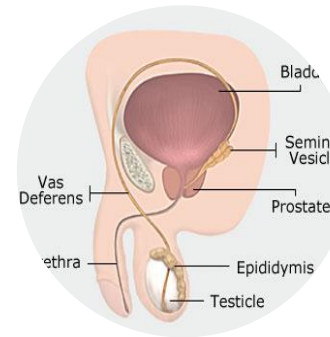
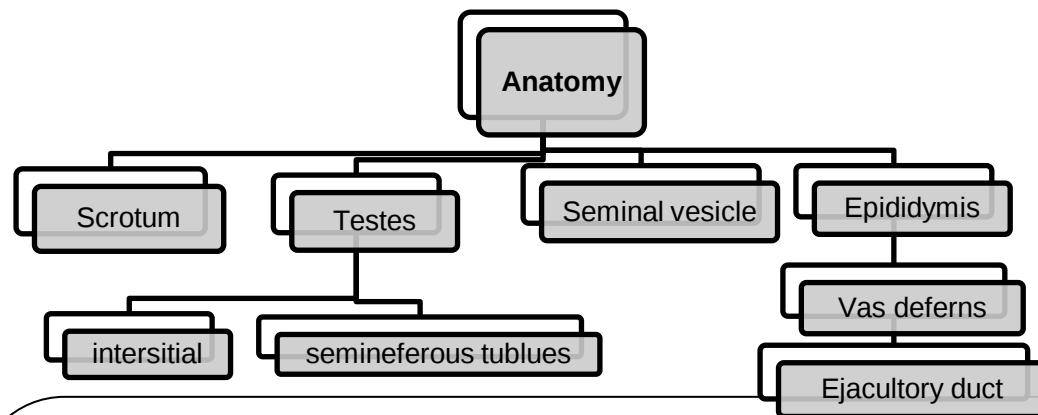
late acquired ...penicillin 3 doses....erythro 30 days

Acquired Immuno Deficiency Syndrome (AIDS)

Def. : It's end stage of HIV infection •RNA •Retrovirus •It's Pandemic •It's M/C cause of death among infections

Organism	Mode of transmission	Virology ... جواب مسوچر	Pathology
HIV 2 : - In Africa -Less transmissible -Protect against superinfection by HIV1 HIV 1	Sexual : -Hetero (M/C) -Homo -Bi Blood : - Products - Shared Needles -Contamination Baby : -Vaginal discharge (M/C) -Transplacental - Milk <i>Found in All body secretion BUT only ↑↑ concentration in blood and genital secretion ∴ NOT transmitted through causal interaction and (Mosquito bites)</i>	1) Genome الحبر السري -2RNA strands Use reverse transcriptase to convert to DNA 2)Core -P24 core protein -P17 3)Envelope ظرف بلزق - gp120 :: Attach to protein receptor on surface CD4 - gp 41 : trans membrane glycoprotein PERN Δ: PE ntrate →CD4-T "1st target" →Exposure of RNA →RNA to DNA By transcriptase عكس الطبيعي →Replicate with normal cell division → Rupture & release of virions → New cells infected	1) Decrease - CD4 function↓ - CD4 number ↓ 2) Progression - Immune Dysfunction - CMI Defect Hall mark of disease 3) Complications - Opportunistic Infection - Tumor ✱ M/c opportunistic infection <i>Pneumocystic carinii</i> ✱ M/c cause of death internal infection
			
a) Initial First attack of viremia <i>Acute mononucleosis like</i> •FAHM • Arthralgia • Pharyngitis •Macular eruption (0.5-2 cm) 8-12 days بتخف Viral: Initial ↑↑ load then dramatic ↓↓ CD4 : Normal number Ab specific : 1 w -3 m to be sero-ve	b) Asymptomatic First Body defence (AB) • Viral dissemination • Most patients develop clinical latency 6 y CD4 ↓but still >350/ml Ab still detectable	c) Symptomatic Infection Second Attack of viremia •Viral dissemination •↑opportunistic inf. With decrease CD4-T cells • Range from chronic generalized LN⁺⁺ to clinical T-cell deficiency <i>Rarely curable but controllable</i> CD4 marked ↓↓	d) Progression for AIDS Failure Of defence 1)Prolonged constitutional symptom - Diarrhea, weight loss - Night sweat, night fever 2)Infections (opportunistic <200) - MM(oral candida ,leukoplakia) - Skin (HZV, HSV, fungal infection) 3)Tumor <i>Kaposi sarcoma</i> <i>lymphoma</i> CD4 < 200/ml 1 st year : 49 % 5 y :15% survival
			
Investigations :		Treatment No TTT curative	
Viral Antibody In serum •ELISA screening sensitive •Western blot (confirmatory)	b)Viral Ag (Blood) P24	c) Reverse transcriptase PCR <i>by as level correlate é viral load that s high early in acute disease & in late AIDS as CD4 ↓</i>	d) CD4 +T cells initial :Normal number asymptomatic:↓ still >350/ml Symptomatic: CD4 marked ↓ Progression : < 200/ml
		BEFORE <i>the most important</i> Prevention by Avoidance of MOT Needles, sterilization of instruments	AFTER 1) Encourage causal social life to avoid antisocial behavior 2) Anti retrovirus &Antimicrobial Prophylaxis For certain levels fall 3) Antiretroviral :CD4 < 500/ml 4)Pneumocystic Carnii :CD4 <200/ml

Inertility



Scrotum

- thin skin devoid of fat
- keep testis temp lower than body by contraction of dartos &

seminal vesicle

- **small elongated sacs** on both side prostate
- on both sides of prostate
- under **urinary** bladder
- secrete 2/3 semen

epididymis

- **slug** shape mass
- outside testis
- necessary for sperm maturation

Intersitial

- **LEYDIG CELLS** → secretes testosterone
- collagen+areolar+elastic
- blood +lymphatic

seminiferous

- total length 500m
- sperms develops in wall

- **Sertoli cells:** **BSNT** **جيتله ABPT** **عبيط GERM** **بتخدم BSNT** **MANA** **MANA** **MANA**
- **Barrier:** Blood - Testicular barrier by tight junction of cells prevent toxins to pass
- **Phagocytosis:** of degenerated cells
- **Support:** Mechanical support of germinal epithelium
- **Secretory:** Under FSH secrete **ABP**: bind to testosterone decrease its rapid metabolism to estradiol → **Inhibin**: -ve feed back FSH → **Transferrin**: marker of Sertoli cell function → **Mullerian inhibiting Factor**: by fetal Sertoli cells in fetal life → **Growth factor**
- **Nutrient** → to germ cells

• GERM cells (GCT)

Spermatogonia → Spermatocyte (1ry and 2ry) → Spermatid → Sperms
75 D required: Production **15 D: maturation** **90 days** ∴ **follow up ttt 3m**

• Semen Components

In order of ejaculation

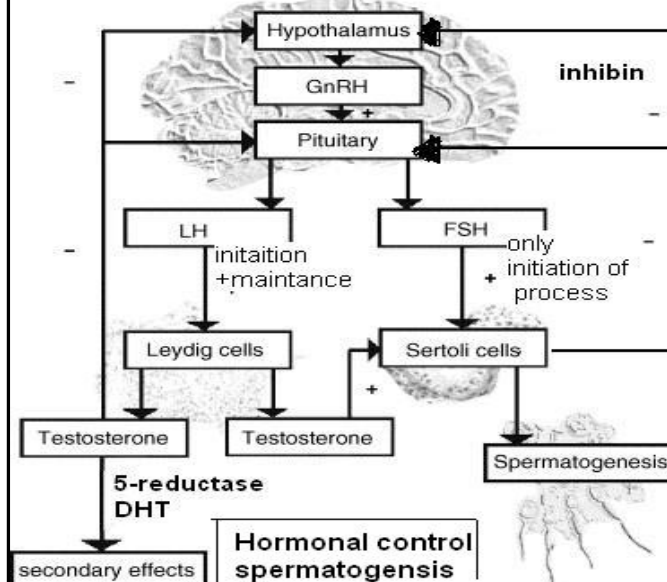
a) Cowper's & Littre glands secretions: 5%
 Prosemen for lubrication & Neutralization

b) Prostatic: 30 %
 acidic

c) Seminal vesicle 60 %
 alkaline

a+b+c= seminal fluid

d) Sperms: 5 %



Stages of sperm production

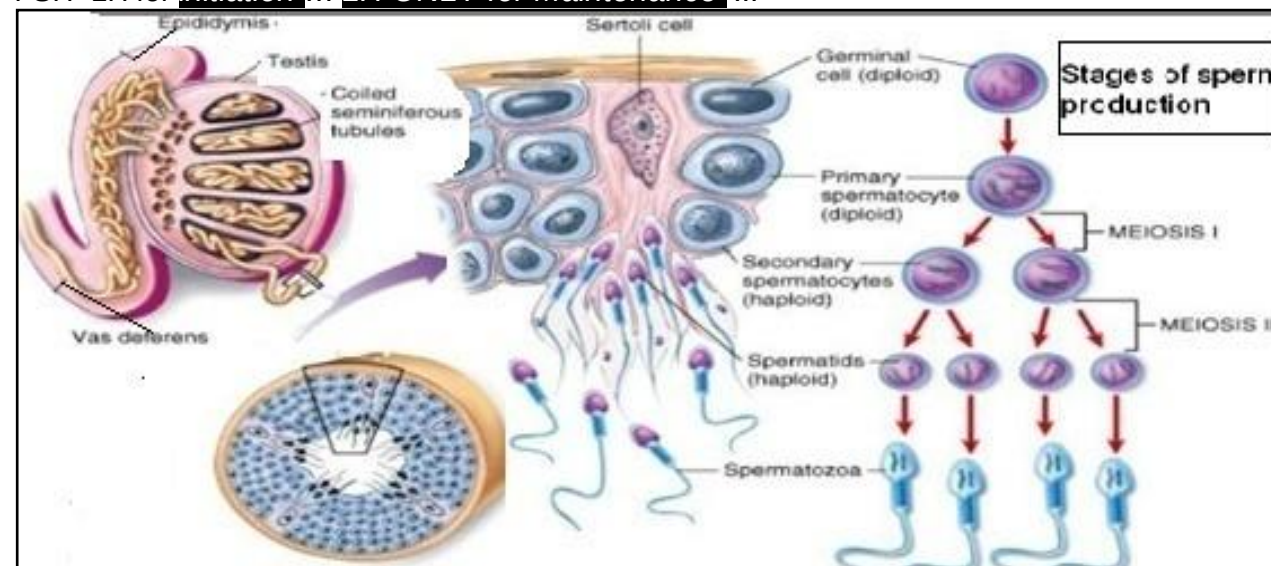
1) Spermatogenesis: Division & differentiation of spermatogonia (2N) to spermatid (N)

2) Spermiogenesis: Spermatids → Sperms in lumina of Seminiferous tubules **ليس ميوه .. ويسبح في ال**

3) Spermeation: Release & passage of sperms → Epididymis till complete maturity (Spared for Fertilization = Spermeation)

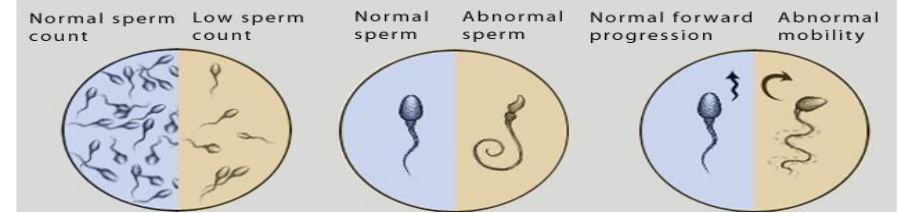
• Hormonal control

FSH+LH for **initiation** ... **LH ONLY for Maintenance** ... **منه له**





Evaluation



History

Infertility

- Duration
- Previous (evaluation, ttt, Pregnancies)
- Partner (♀ > 35y)
- Smoking, addiction

Sexual

- ED
- Libido
- Spermicidal Lubricants

Surgical

- Retroperitoneal LN dissection
- Bladder neck operation
- Varicocelectomy

Medical

- Onset of puberty
- Hidden, Undescended testes
- Mumps Orchitis
- STD, TB, Bilharzias
- DM neuropathy

Ejaculate

- Premature, Retrograde ejc.

Drug

- Cancer Chemotherapy

Family

- Chromosomal abnormality

Examination

General

Gynecomastia

- Hair distribution

- Muscle mass and development

- Skeletal proportion

Local

► **Penis:**

Size Shape
Urethral Meatus

► **Testes:**

- Size-Sensation-consistency- scrotum

Transillumination

► **Epididymis:**

Soft-barely palpable
Posterolateral To testis

Accessory genital

► **Prostate:**

P/R → size consistency
tenderness

smear →
pus cells HPF > 20 =
Chronic Prostatitis

► **seminal vesicles**

Not normally felt
When indurated on both
side on upper pole
prostate

► **Spermatic cord:**

Vas deferens: Rolling firm cord inside cord between index & thumb

Varicocele: *large*: seen on standing

small: distinct impulse- dilated internal spermatic vein – Doppler

Treatment of Male infertility:

- **Medical:** Hormonal
- **Surgery:** Varicocele ligation, correct obstruction
- **Assisted Reproductive Techniques (ART)**

Artificial insemination تلقیح صناعی

In vitro fertilization اطفال انابيب

Intra Cytoplasmic Sperm Injection حقن

Investigations

a) Semen analysis

Collected by **Masturbation (best)**
electric. Coitus interruptus, after
3-5 d sex abstinence

3-5 Pus cells HPF	2-6 ml vol. After 3-5 d Sex Abstinence	7.2-8 PH alkaline	10-20 min liquefaction
> 20 million/ml Sperm count "Normospermia"	< 30 % Abnormal morphology	> 50 % Viable sperms	> 60 % Motile sperms in 1 st hour
Viscous	No agglutination	Forward motility	
Spermia = semen vol.		Zoospermia = spermatogonia	
A= No		e.g. retrograde ejc. Obstructive / functional	
Oligo = Hypo		< 1.8 ml < 20 million/ml	
Poly = Hyper		> 6 ml > 250million/ml	
Pyospermia: > 6 pus cells high power field		Asthenozoo: ↓ motility Teratozoo: > 35% ab. sperms Globozoo: Round head "No acrosome" Necrozoo: All sperms are dead	

Azoospermia Causes

Obstructive in ducts

- Epididymal (post inf)
- Ejc. Ducts
- Vasal (inf. ,ligation surgical ,congenital)

Functional:

- Congenital: Cryptorchidism
- Chromosomal :Down. Klinefelter
- Trauma: Torsion, orchiectomy
- Hormonal: Hypopituitarism
- Tumor, Orchitis, Radiation

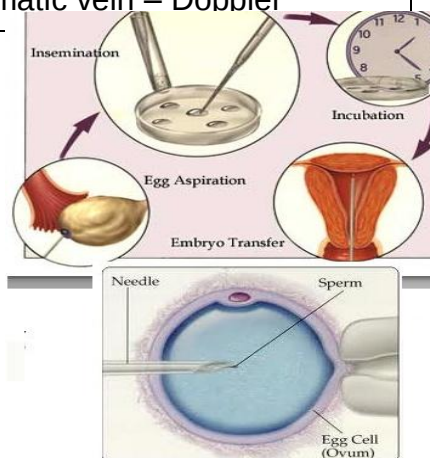
b) Hormonal

FSH, LH , Testosterone,
Prolactin , Thyroid

c) Biopsy

Differentiate functional –
obstructive azoospermia

Functional → No Spermatogonia



Anatomy of Penis

Body hangs free

Root fixed

- **Dorsal:** 2 corpora cavernosa
- **Ventral:** 1 corpora spongiosum : contain **urethra** ...to glans penis distally
 - coporal bodies are composed of interconnected sinusoidal spaces separated by trabeculae of CT and smooth muscles

- 2 Crura**
- Proximal extension of 2 corpora cavernosa
 - attached to ipsilat. ischiopubic ramus
 - covered by ischiocavernosus muscles

- 1 Bulb**
- Proximal extension of corpora spongiosum
 - bulb lies between 2 crura
 - covered by bulbocavernosus muscles

Neurophysiology

Autonomic
"Cavernous nerves"

Thoraco lumbar sympathetic
T11-L2
Main neurotransmitter **NE**
causes **VC**
"Anti erection = Flaccid state"

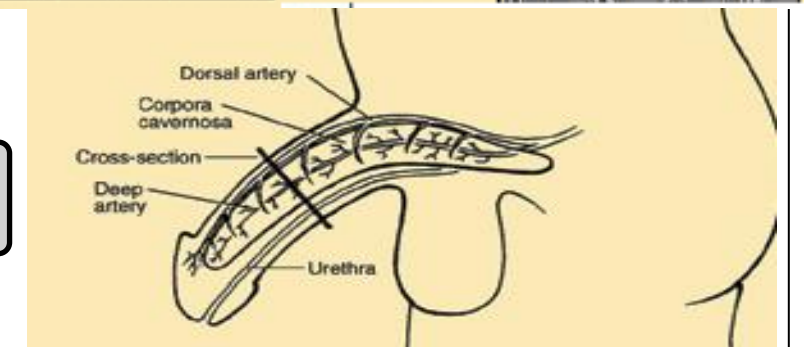
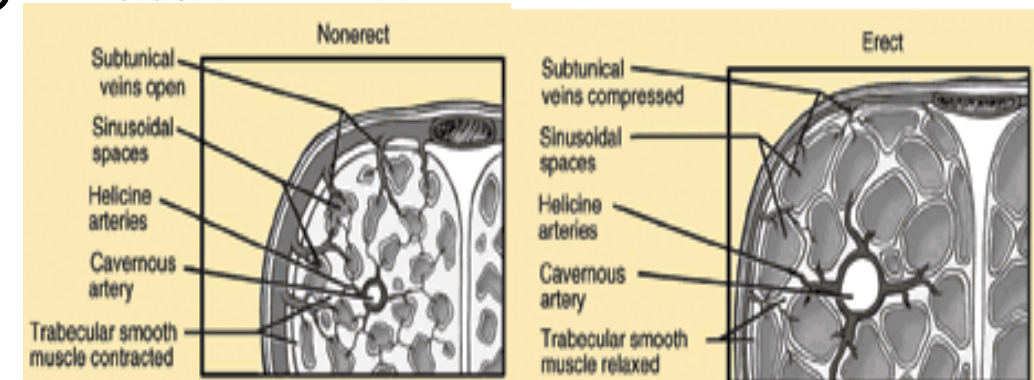
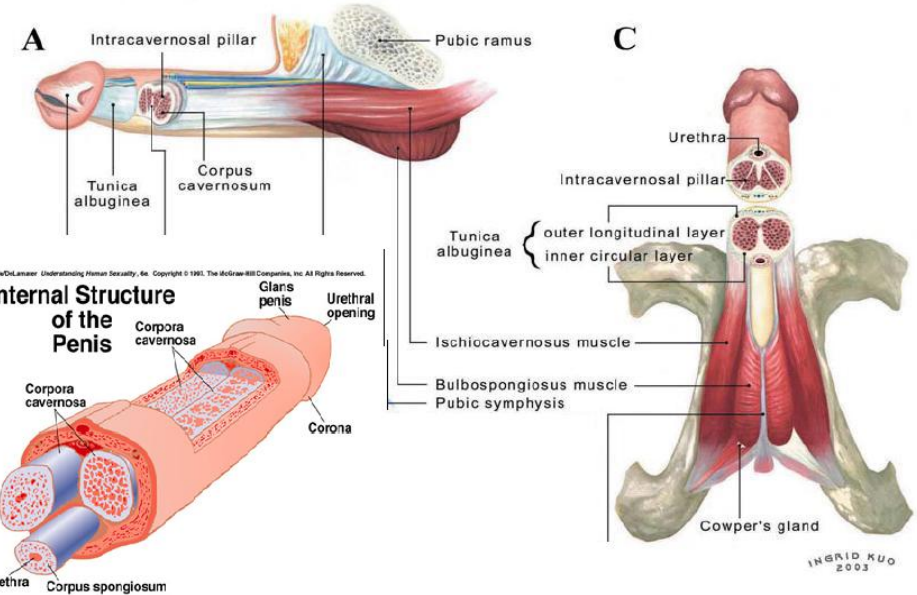
Sacral parasympathetic
S2-S4
Mainly **ACh** through Nitric Oxid
GTP transformed cGMP
causes **VD "Erectile state"**

Non adrenergic
Non cholinergic
VIP, NP-Y,
substance P

Somatic
"Pudendal nerve"

Sensory
From glans penis &
penile shaft → S2-S4

Motor
- Ischiocavernosus
- Bulbocavernosus

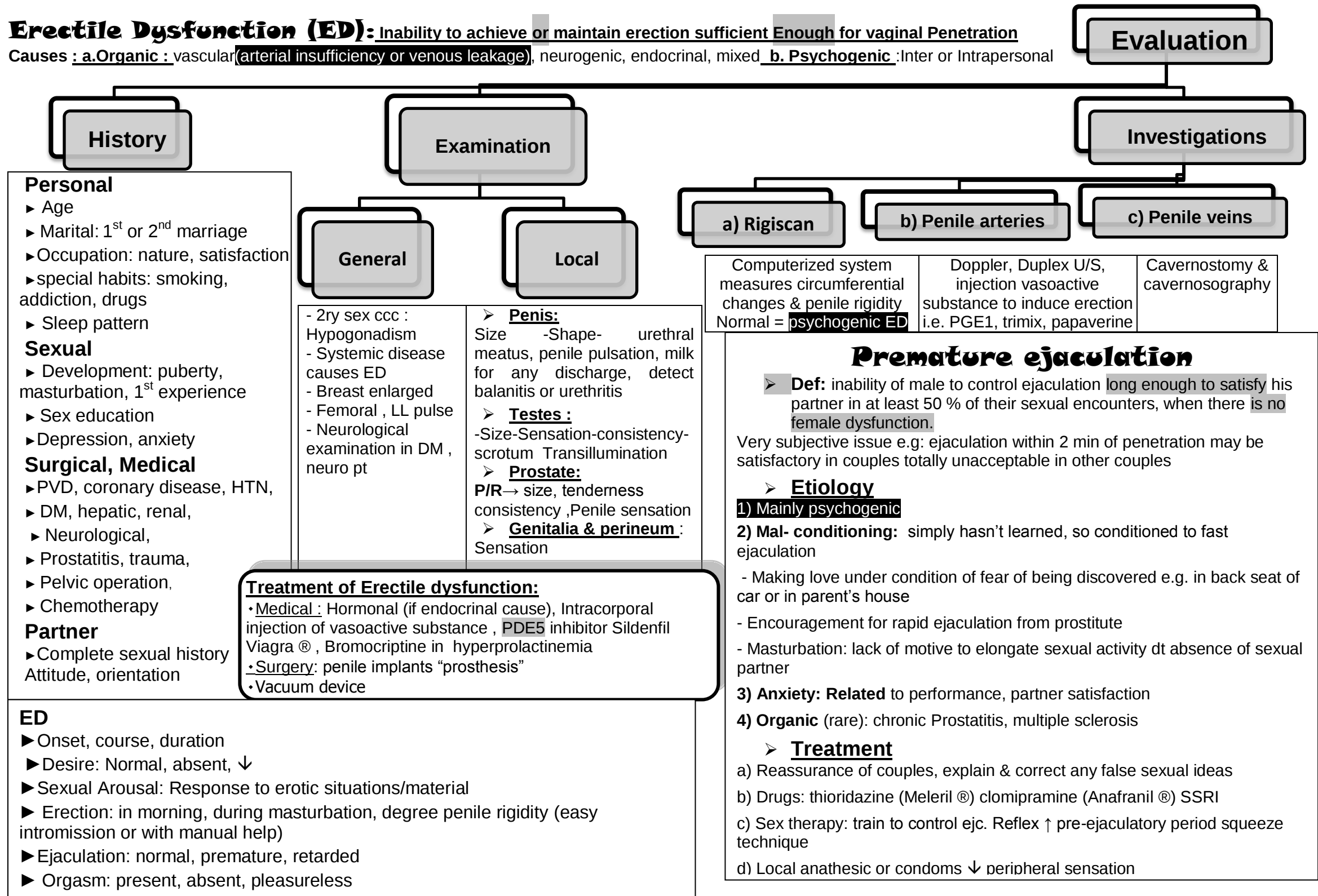


Mechanism of erection : NO smooth muscle relaxants cause dilated cavernous arteries, compression of some specific veins...engorgement of penis

Nocturnal penile Tumescence : erection in rapid eye movement (REM) during sleep followed by *detumescence* in non REM

Erectile Dysfunction (ED): Inability to achieve or maintain erection sufficient Enough for vaginal Penetration

Causes : **a. Organic** : vascular (arterial insufficiency or venous leakage), neurogenic, endocrinal, mixed **b. Psychogenic** : Inter or Intrapersonal



Differential Diagnosis

Bacterial

Erysipelas:

- 1-Cellulitis
- 2-Angio-edema
- 3-Acute eczema

Sycosis barbae : pseudofolliculitis

pseudo → non infectious, inf, dt ingrowing hair, papules, pustules antrolat. aspect of neck or angle of jaw

Intertrigo "DSTEC" دستك

- 1-Dermatitis "contact" 2-Seborrheic
- 3- strept : longitudinal, painful, at angle of skin fold, skin around is red, moist
- 4- Simple dt friction
- 5- Psoriasis flexural
- 6- Tinea cruris
- 7- Erythrasma
- 8- Candida

Mycobacterium

Lupus Erythematosus:

- 1-Lupus vulgaris
- 2-Psoriasis

Lupus vulgaris scar : DLE

Lupus: thick contractile unhealthy
DLE: thin, atrophic, non contractile, healthy

pityriasis alba

vitiligo
leprosy
pityriasis versicolor (hypopigmented)

Viral

Herpes simplex:

- 1-impetigo
- 2-Herpes zoster

chickenpox:

- 1-Papular urticaria
- 2-Scabies

plantar warts:

Callus (crossed by skin creases)

genital warts:

Condyloma lata of syphilis

Distribution

annular lesions:

- 1-Annular lichen planus
- 2-Annular psoriasis
- 3-Annular syphilis (2ry stage)
- 4-Circinate impetigo
- 5-Pityriasis rosea (herald patch)
- 6-Tinea circinata
- 7-Subacute cutaneous lupus eryth.

linear lesions:

- 1-Contact dermatitis
- 2-Herpes zoster
- 3-Nevus
- 4-Lichen planus
- 5-Molluscum contagiosum
- 6-Burrow of scabies
- 7-Keobner in plan wart

psoriform lesions:

- 1-Drug eruption
- 2-Discoid eczema
- 3-Erythema multiforme
- 4-Subacute lupus
- 5-Psoriasis

Parasitic

Scabies:

- 1-impetigo
- 2-Papular urticaria
- 3-Insect bites
- 4-Contact dermatitis
- 5-Atopic dermatitis

Tinea capitis:

- 1-Seborrheic dermatitis
- 2-impetigo
- 3-Psoriasis
- 4-Alopecia areata

Tinea corporis:

- 1-Circinate impetigo
- 2-Pityriasis rosea

Tinea cruris:

- 1-Erythrasma
- 2-Candidiasis of the groin
- 3-Intertrigo
- 4-Flexural psoriasis
- 5-Seborrheic dermatitis

Onychomycosis:

- 1-Psoriasis of the nail
- 2-Paronychia due to candida
- 3-Bacteria

STD

chancere:

- 1-Chancroid
- 2-Lymphogranuloma venereum
- 3-Granuloma inguinale
- 4-Herpes progenitalis (recurrent)
- 5-Behcet's disease
- 6-Traumatic ulcer
- 7-Fixed drug eruption

Erythematosq

Psoriasis

- 1-Plaque psoriasis: Hyperkeratotic lichen
- 2-Guttate psoriasis: Pityriasis rosea
- 3-Flexural psoriasis: Flexural candidiasis
- 4-Scalp psoriasis: Seborrheic dermatitis
- 5-Nail psoriasis: Fungal nail infection

pityriasis rosea:

- 1-Tinea circinata (Herald patch)
- 2-Guttate psoriasis
- 3-2ry syphilitic rash
- 4-Pityriasisiform drug eruption

Generalized lichen planus:

- 1-Lichenoid drug eruption
- 2-Guttate psoriasis
- 3-Pityriasis rosea

genital lichen planus:

- 1-Psoriasis
- 2-Scabies

Pigmentary

Vitiligo:

- 1-Pityriasis alba
- 2-Tuberculoid leprosy
- 3-Postinflammatory hypopigmentation
- 4-Pityriasis versicolor
- 5-Albinism
- 6-Nevus anemicus

Chloasma:

- 1-Postinflammatory hyperpigmentation
- 2-Actinic lichen planus

Scaly scalp: tinea capitis - psoriasis - impetigo - DLE - seborrheic dermatitis

Alopecia areata: scaly ring worm

Collections

Lichen • Itchy except actinicus • Cicatricial alopecia (Lichen planopilaris)	Psoriasis • Not itchy except flexural • Not cicatricial alopecia • Only scaly scalp	Kerion Vs. abscess • NO → FAHM - Pain – Pus • # Incision OR Drainage • Chronic Course Not Respond to ABs	❖ Chancre Vs. Chancroid → See Clinical CD “Slide 212” ❖ Condyloma Lata Vs. Accuminata → See CD slide 211
2 🔥 Post inf. Hypopigmentation: psoriasis – Pityriasis 🔥 Post inf hyperpigmentation: lichen – eczema – A.D.Folliculitis 🔥 Ill defined: cellulitis –LL – p.alba – allergic except discoid 🔥 Well defined: erythrasma – T.L – p.versicolor – pigmentary	🔥 Na+hypo sulfic : p.versicolor 🔥 K+perminganat: bacterial inf. & Acute eczma (oozing) 🔥 Polymorphic: chicken pox – E multiform 🔥 Pleomorphic: scabies – Acne – HZ	🔥 Sycosis barbae :staph 🔥 Pseudofolliculitis: F.B reaction 🔥 Flat papules : verruca plana Lichen planus	
Ulcers • <u>Ecthyma</u> : saucer (dish) deep- raised edge • <u>Ulcerative TB</u>: orificialis • <u>Chancroid</u> : painful , regged underminf • <u>\$ Chancre</u> : painless, sloping edge • <u>2ry \$</u>: snail track • <u>3ry \$</u> : polycylic Yellow necrotic gummy floor	L.N • Impetgio contagoisum • Ecythma &Celluitis • HSV I • \$ • Chancroid • LGV(Buboes) N.B.: G. inguinale → Pseudo buboes NO L.N.	Scars • <u>Ecthyma</u> : (l.c : no scar) • <u>Sycosis barbea</u>:F.B. reaction end wz scar • <u>Lupus vulgaris</u>: (thick,healthy,contactile) • <u>DLE</u>: (thin, atrophic, healthy) • <u>Cicatricial alopecia</u> (TIIT LBC)	
TESTS ➡ Grattage test....Psoriasis ➡ Diascopy test...lupus vulgaris ➡ Patch test...contact dermatitis ➡ Bond test.....DLE ➡ Histamine and pilocarpine tests: -ve in TT ➡ Disc test....AB sensitivity gonorrhea ➡ Western blot....AIDS ➡ Wasserman.....Syphilis ➡ Slit skin smear....LL ➡ Hanging drop....Trichomonas vaginalis	STAIN ➡ TB....modified ZN stain ➡ Leprosy....modified fite stain ➡ Gonorrhea....gram stain ➡ Treponema pallidum....dark field ➡ Trichomonas:wet mount(Hanging drop) ➡ Trichomonas... Papanicolaou ➡ G.inguinale....Giemsa or Wright’s KOH 10% ➡ Fungalhyphae and spores ➡ Scabies...mites and eggs	WOOD'S LIGHT ➡ Erythrasma ..Coral red ➡ Pityriasis versicolor...golden yellow ➡ T.violecum....No fluorescence ➡ Microsporum Canis....Green CULTURE ➡ Fungi : Sabaroud agar ➡ TB...Lowenstein Jensen Media ➡ Gonorhae : Thayer Martin (selective)	
Scientists	✚ Hansen’s disease....Leprosy ✚ Goekerman technique...TAR+UVB ✚ Ingram techinque...TAR+UVB+Anthralin	✚ Graham little syndrome....Lichen planopilaris: →Cicatricial alopecia ✚ Wickham’s striae....Lichen adherent scales ✚ Auspitz’s sign....Psoriasis →pin point Hge on grattage of skin ✚ Bockhart’s....acute superficial folliculitis→scalp→dome shaped pustules	

☘ **Most sensitive:**

- **Gono:** RIA , against fimbria
- **\$:** FTP-ABS IGM (confirmed by Wasserman)
- **AIDS:** ELISA (confirmed by western blot)

☘ **Atopic dermatitis:**

- **infantile:** cheeks > acute > ttt aqueous
- **childhood:** flexures > subacute > ttt cream
- **adult:** chin tibia > chronic > ttt oil

☘ **Etiology**

- **Psoriasis >>** autoimmune
- **P. rosea >>** viral
- **Lichen >>** both (usually e HCV)

☘ **Premalignant:**

- **Lupus vulgaris:** SCC.
- **C. accuminata:** Cx intra epith tumor
- **Lichen of MM**

☘ **Shift:**

- **Post strept. GN:** dt shift of strains.
- **p. versicolor:** shifted relationship bet. Org. & human.

☘ **Whitish:**

- **Molluscum:** pearly white umbilicated papule
- **Oral thrush:** white patches (pseudo memb.) (candida)

☘ **Serology in \$**

- **100%** +ve in 2ry \$
- **70%** +ve in 2ry \$

☘ **Itchy**

- fungal - allergic - parasitic
- lichen - flexural - psoriasis

☘ **Leprosy:**

- **Susceptibility** acc. To >> Genetic & Env > factors
- **Outcome** (c/p) acc to >> CMI
- **LL >>** 2G >> Grenz zone > healthy dermis zone
- **Glove and stocks** (late) >> early in TT

☘ **Nail ds.:**

- **Paronychia:** (fold) : 1. acute (staph. +oozing)
2. chronic (allergic + absent cuticle)
- **Onchomycosis:** nail plate
- **Psoriasis:** pitting
- **Lichen:** longitudinal ridges

☘ **Target site:**

- **Herpes >>** dorsal root ganglion
- **HZ ophth. >>** stellate ganglion
- **Leprosy >>** Schwann Cells
- **AIDS >>** T- helper CD4

☘ **Lichenoid**

- drugs:** جيس
- Gold
- Antimalaria
- PASA
- streptomycin

☘ **Koebner**

- lichen
- psoriasis
- viral warts
- vitiligo
- **NOT P. rosea**

Notes From MCQs

- ***Telogen effluvium**...good prognosis and regrowth in 6 months.
- ***Androgenetic alopecia in female**...Normal androgen (only increased sensitivity).
- ***Topical imidazole**... azoles effective in yeasts >>> P. versicolor – Candida.
- ***Recurrent urticaria >>>** most useful is thorough history.
- ***Nystatin**...topical drops not for local or systemic use (not for trichophyton) ,, for yeasts.
- **Non-infection:** pseudo folliculitis, p. versicolor, psoriasis.
- **Self limiting:** viral infec, animal scabies, miliaria. P. rosea.
- **Apocrine gland >>** 3A >> Axilla - Anorectal - controlled by Androgen
- **Never vesiculates:** Acne – chancroid - \$ Gumma – 2ry \$ (except early cong \$)
- **Subungular keratosis:** psoriasis & onchomycosis (but nail pitting in psoriasis only)
- **Prurigo of hebra**...allergy to insect bites
- **Thin stippled scar** + telangiectasia = DLE
- **Dyshidrosis (pompholyx)**...sides of fingers
- **Gonorrhea in females**...Vulva, eye, urethra
- **CDLE ...** ttt by antimalarial >>> Chloroquine
- **High recurrence:** (herps, p. versicolor)
- **Hospitalization:** cellulitis – Prurigo Of Hebra
- **Heals spont.** : T.B. chancre , intermediate leprosy
- ***Psoralene (PUVA)**...Vitiligo
- ***Post scabetic** nodules...on genitalia
- ***Bilateral HZ**...in Hodgkin's disease
- ***Christmas tree pattern** >> p. rosea 2ry rash
- ***5th n. >>** Leprosy & HZ (ophth. division)
- ***2 Gono & T. pallidum** >> Labile → penicillins
- **FAHM:** erythrasma, 2ry \$. AIDS
- **Equal sex:** acne – vitiligo - psoriasis

Andrology

- **Transferrin**...marker for sertoli cell function
- **Seminal fluid**...mainly by seminal vesicles → alkaline
- **Aspermia** → No semen **Azospemia** → No sperms.
- **Globozoospermia** → Round heads (No acrosomes).
- **Dead sperms** → stained with Eosin-Negrosin supravital stain.
- **Male urethra** → pass in corpus cavernosum
- **Erection** occurs in rapid eye movement phase (REM)
- **Rigiscan** → for penile rigidity during sleep → Measure the **circumferential** changes → if normal: E.D. is psychogenic
- **Premature ejaculation** → is mainly psychogenic → reassurance
- **Both FSH & LH** → initiation
- **only LH for** → maintenance of spermatogenesis
- **Athenozoospermia** → motility < 60%
- **Teratozoospermia** → abnormal > 35%
- **Symp.** → NE. → V.C. → Anti-erectile (T11-L2)
- **Parasymp** → A.Ch → V.D. → Erection (S2,3,4)
- **Somatic** → Pudendal nerve
- **Condyloma lata** : is the most infectious lesion in \$.
- **Leprosy C.N. >>** 1,5,7 (TOF) >> trigeminal, olfactory & facial

Lesions According To Body Areas

Differential Diagnosis

- Single Well defined rounded + reddish+ no hair +thin non contractile scar + adherent scales → **DLE**
- Multiple + erythematous + matted hair with yellowish crust + two tender occipital swellings → **Impetigo contagiosum**
- Multiple + erythematous + yellowish greasy scales encircling the hair and eye brow + itchy → **Seborrheic dermatitis**
- Single + hair thick lusterless non broken + multiple yellow dry crusts surround hair follicle → **Favus**
- Single + hair short + fine grey scales + active raised edge papules, pustules, crusts, vesicles → **Scaly ring worm**
- Multiple well defined +erythematous + intact hair + dense white scales + same on trunk → **Psoriasis**
- Diffuse erythema +scaling scalp +intact hair + same on trunk with hyperkeratotic papules → **Pityriasis rubra pilaris**

SCALP

FACE

- On cheeks + itchy erythematous edematous + covered with vesicles and crusts + infant → **Atopic dermatitis**
- Around mouth + grouped vesicles → **Herpes Simplex**
- Generalized+ acute onset + vesicles, papules, pustules +some are crusted + in crops +child → **Chicken pox**
- On chin + vesicles and pustules + crusted +child ...علائقه ...علائقه → **Impetigo contagiosum**
- On face + pearly umbilicated papules +contain whitish cheesy material → **Molluscum**

TRUNK & ANNULAR

- Annular on trunk+ elevated red border+ white glistening scales +nail pitting + pin point bleeding → **Annular psoriasis**
- Annular on forehead + blue center violaceous waxy border + ↑↓ with sun → **Annular lichen Planus**
- Annular on abdomen + thick gummy brownish crusts + nearby vesicles → **Circinate Impetigo**
- Circular erythematous + vesicles, pustules, crusts on (=raised) edge + fine scales in center → **Tinea circinata**
- Oval + non raised border + covered whitish irregular scales +brown color → **Pityriasis rosea**

HAND CONT.

- On extremities + circular erythematous + vesicle in center +MM affection → **Erythema multiforme**
- On extensor surface of one forearm + well defined erythematous lesion covered by vesicles ,crusts → **Discoid eczema**

HAND

- On hands + papules and pustules + itchy + on genitalia + same in two brother → **Scabies**
- On hands mainly sides of fingers + vesicles + itchy + oozing + body free → **Dyshidrosis (Pompholyx)**
- On hands +papulo-vesicular +Itchy + Recurrent + on feet and trunk → **Papular urticaria**



GENITAL

- Upper medial aspect of thighs & axillae + well defined + itchy + fine brownish scales → **Tinea cruris**
- Crural extend to buttocks + red patch + well defined + itchy + elevated edge + brownish +fine scales → **Tinea cruris**
- Crural + red patches + well defined + foostened edge with papules, pustules , vesicles → **Candidiasis**

GENITAL

- Penis shaft + Multiple erythamatus + painful + superficial erosions + preceded vesicles+recurrent → **Herpes Progenitalis**
- Glands penis + single + surrounded by dusky erythema + large erosion +recur with tonsillitis → **Drug eruption**
- Penile shaft & scrotum + Multiple + ulcers + undermined edge + LN ++ tender → **Chancroid**
- Coronal sulcus + two opposed + ulcers + indurated base + LN ++ non tender painless → **Chancra**

LEG

- Child or IC old +Preceding minor trauma &strept + leg + red hot tender+ well defined + advancing edge → **Erysipelas**
- As above + leg + red hot tender + Ill defined + indurated + أجتر حجاج مستطفي → **Cellulitis**
- As above + on shin of tibia + vesicle rupture dark adherent scar then ulcer → **Ecthyma**
- Bilat, symmetrical Mainly anterior of L.L + Preceding infection + red hot tender+ multiple nodules → **Erythema Nodosum**

PRactical PART

DERMA CLINICAL COMMENTS

PYOGENIC INFECTIONS

Impetigo Contagiosum	
C.A.	Staph. aureus - GABH strept.
1ry lesion	Vesicle
Diagnosis	Gram stain – Culture
TTT	(T) AB (fuscidic acid) + Antiseptic (P.P) (S) BS AB (Erythromycin)

Ecthyma	
C.A.	Mainly Strept.
1ry lesion	Vesicle >> dark adherent crust >> saucer ulcer
Complications	Cellulitis – Osteomyelitis
TTT	TTT PDF Sys. ABs for 14 days.

Folliculitis	
C.A.	Staph. aureus
1ry lesion	Dome shaped pustule
TTT	Topical ABs + Antiseptics +/- sys. ABs

Pseudo-folliculitis	
C.A.	F.B. Inflam. reaction to hair (No Org.)
1ry lesion	Papules & Pustules
Site	Shaved areas esp. angle of jaw
TTT	• Shave in one direction • Topical Steroids

sycosis Barbae: Chronic folliculitis (Recurrent)	
C.A.	Staph. aureus
1ry lesion	Papule & pustule pierced by hair
TTT	Topical & sys. ABs Combine Steroids & ABs

Carbuncle	
C.A.	Staph. (a type of folliculitis)
Site	Back of neck – Shoulders – Buttocks
TTT	Drainage + Abs.

Furuncle	
C.A.	Staph. aureus - GABH strept.
1ry lesion	Vesicle
Diagnosis	Gram stain – Culture
TTT	(T) AB (fuscidic acid) + Antiseptic (P.P) (S) BS AB (Erythromycin)

Erysipelas > Superficial (Epidermis)	
C.A.	Hemolytic Strept.
Lesion	Well-demarcated red area + advancing edge (Vesicles on surface)
Prodroma	FAHM > few hours > Eruption
D.D	Cellulitis – Angioedema – Eczema
TTT	• Rest + Antipyretics • Penicillin 10-14 days

Cellulitis > Deep (Dermis)	
C.A.	Strept. OR Staph.
Lesion	Ill –defined red tender area + FAHM
TTT	Sys. Abs. +/- Hospitalization

Erysrasma	
C.A.	Corynebacterium Minitissimum
1ry Lesion	Redish Brown PATCHES e no active edge + fine scales مبيضة شوية
Diagnosis	Wood's Light > Coral Red Fluorescence
TTT	(T) Antifungal + (S) Erythromycin

Angular Cheilitis	
Def.	Inflammation of mouth angle
PDFs	راجل عجوز: عيان وبيريل ومركب طقم سنان
C.A.	Strept. – Candida – Riboflavin Defic.
TTT	* TTT PDFs – Vit. B Complex * Topical Antifungal +/- ABs

Acute Paronychia (Preserved Cuticle)	
C.A.	Staph. & Strept. After minor trauma
Lesion	Inflam. Of nail fold (Pustule)
TTT	Drainage + Abs.

VIRAL & PARASITIC INFECTIONS

Herpes Simplex	
C.A.	H. Simplex virus (Root Ganglion)
1ry Lesion	Vesicle
D.D.	Impetigo – H.Z.
TTT	(T) Getian violet + Acyclovir cream (S) Acyclovir >> 200X5X10

Chicken Pox	
C.A.	Varicella zoster virus
1ry Lesion	Polymorphic (Mac, pap., vesicles...)
D.D.	Papular urticaria – Scabies
TTT	(T) Getian violet + Calamine lotion (S) Acyclovir

Herpes Zoster	
C.A.	Reactiv. Of latent Varicella Z.
D.D.	Herpes simplex
Complication	Post herpetic neuralgia – 2ry inf.
TTT	(T) Getian violet + Acyclovir cream (S) Acyclovir >> 800X5X10

Viral Warts >> HPV	
Verruca Vulgaris	• Greyish papule e rough surface • Direct contact or auto-inoculation
Planter Wart	• Sole or inbet. Toes • D.D. > Callus > Crossed by skin crease
Genital Wart	• Cauliflower mass (or papule) • D.D. > Condyloma lata of syphilis
TTT	• Chemical cautry > Salicylic a. > planter • Electric cautery – CryoTh. – CO2 Laser • Topical Retinoic >> Plane • Genital > 25% podophyllin in ticture binzoin (# in pregnancy)

Molluscum Contagiosum	
C.A.	POX Virus
1ry Lesion	Pearly white PAPULE e umbilication
TTT	• Squeeze then cauterize the base • Concentrated phenol paint



Scabies	
C.A.	Sarcoptes scabiei hominus
1ry Lesion	Pleomorphic mainly Burrows
Diagnosis	Scrap + 10% KOH > Mites – Eggs – Frag.
TTT	• TTT all members (1 st ttt 2ry infection) 1- (T) Sulfur – Permethrin – Malathione 2- (S) Ivermectin - Antihistaminics

Pediculosis (Head Lice)	
C.A.	Pediculus humanus capitis
Diagnosis	Scalp pruritis + nits more seen than lice
TTT	• 1 st ttt 2ry infection • Permethrin – Malathion • Fine toothed comb

Pubic Louse Infestation	
C.A.	Pubic (crab) lice
Sites	Groin – axilla – eyebrows – eye lashes
TTT	• Shave the pubic area • Malathione is effective

MYCOBACTERIA

Lupus Vulgaris	
C.A.	M. tuberculosis
1ry Lesion	Apple Jelly Nodule .. حمرا
Specific Test	Diascopy Test > اضبط عليها يختفى الاحمر
Diagnosis	Z.N. stain – Tuberculin Test
TTT	<u>PRISE</u> >> pyrazinamide – Rifampicin – INH – Streptomycin - Ethambutol

Tuberculoid Leprosy	
C.A.	M. lepra
1ry Lesion	Hypopigmented Macule
Diagnosis	<u>Smear</u> >> Modified Z.N. > No Bacilli <u>Biopsy</u> >> Linear granuloma <u>Lepromin Test</u> >> +ve
TTT	<u>RiDa</u> >> Rifampicin – Dapsone

Lepromatous Leprosy	
Leonine facies – Loss outer 1/3 eye brows	
Nerves	Ulnar + CNs (1 – 5 – 7)
Diagnosis	<u>Smear</u> >> Z.N. > Many Bacilli <u>Biopsy</u> >> Diffuse infiltration e MQs <u>Lepromin Test</u> >> -ve
TTT	<u>RiDaClo</u> >> Rifampicin – Dapsone - Clofazimine

*Check Your Clinical CD for The Diseases Pictures
&
for the STDs Part which is not
included here*

FUNGAL & ALLERGIC INFECTIONS

Scaly Ring Worm	
C.A.	Trichophyton Violaceum , Microsporum Canis
1ry Lesion	Scaly patches with hairs cut short
Diagnosis	1- Direct Microscopy: Scrap from edge + KOH → Hyphae & spores 2- Culture: Sabouraud Agar 3- Wood's light → Green fluorescence e M. canis (No fluorescence e T. violaceous)
TTT	(T) : ketoconazole (S): -Griseofulvin (6-8 wks) → 12.5mg/kg/day -Orally after fatty meal

Black dot Ring Worm	
C.A.	Trichophyton Violaceum
1ry Lesion	Hair is broken off (black stumps)
Same Diagnosis & TTT	

Kerion	
C.A.	T. Verrucosum , T. mentagrophytes
1ry Lesion	Single or multiple Painless swellings
D.D.	Pyogenic Abscess → FAHM + Pain + LN. + Incision & drainage عكس الكيريون خالص
Same Diagnosis (But NO fluorescence) & TTT	

Tinea Corporis (Circinata)	
1ry Lesion	Itchy circinate lesion (healing center , active raised edge.
TTT	Same but GF only for 2-4 wks

Tinea Cruris	
C.A.	Epidermophyton Floccusum, T. Rubrum
1ry Lesion	Well defined Erythematous patch with active raised edge

Onychomycosis	
C.A.	Candida , Dermatophytes , Moulds
1ry Lesion	Lusterless, brittle, friable with evidence of subungual hyperkeratosis
TTT	Same but GF for (6 ms if finger nail) & for (12 months if toe nail)

Tinea Pedis , Macerated toe web	
C.A.	Candida , Dermatophytes , G-ve
PDFs	Occlusive footwear – hot weather
TTT	As before

Pityriasis Versicolor	
C.A.	Malassezia yeasts (P. ovale)
1ry Lesion	Macules covered e cigarette like scales
Diagnosis	Wood's light ex. → golden yellow
TTT	(T) Ketoconazole (S) itraconazole NB: GF is not effective
N.B.	All Candida Infections → TTT as above

Eczema	
Cause	Non-infective Inflammatory
Lesion	Papulo-vesicular eruption
TTT	(S) Antihist. +/- Abs +/- Steroids (T) ** Acute: K-permanganate 1/8000 ** Sub-acute: Corticosteroid cream ** Chronic: Steroid ointment Best line → Avoidance

Contact Dermatitis	
Cause	Exogenous agent exposure (chemicals)
Diagnosis	Patch test

Varicose veins (stasis dermatitis)	
Cause	Increase venous pr. In L.L.
1ry Lesion	Eryth. Scaly oozing area surrounded by blue macules (Hemosedrin)
Complication	Ulceration around one of malleoli

Pompholyx	
1ry Lesion	Itchy Vesicular eruption on sides of fingers and toes
TTT	As b4

Pityriasis Alba	
Etiology	Chronic eczema of unknown origin
1ry Lesion	Rounded or oval patch or erythematous plaque with fine lamellar or branny whitish scaling
TTT	Emollients + Topical Steroids

Urticaria , angioedema	
1ry Lesion	Itchy Wheals
TTT	-Adrenaline 1/1000 1cc SubQ -Antihist. -Ca Gluconate 10cc 10% slow IV -systemic steroids Complete ttt by → Eliminate ! cause

Erythema multiforme	
Cause	Drugs: penicillin - sulfa Infections (m/c HSV)
1ry Lesion	Iris (Target) lesion
TTT	TTT of cause Topical (+/- sys.) Steroids A.Bs (if 2ry infections)

GLANDS – DLE – ERYTHEMATO-SQ – HAIR DS

Acne Vulgaris	
C.A.	Propionobacterium acne
1ry Lesion	Comedones
TTT	1- Local :: ABs (Clindamycin) Benzoyl peroxide Topical azelic acid 2- Systemic :: ABs (Tetracycline) Anti-Androgens Retinoids (Isotretinon)

Miliaria (Sweat Rash)	
Cause	Warm (climate – incubator – fever)
Cause	Ecrrine sweat duct occlusion → rupture → leak sweat → Inflammation
Types	** Crystallina – Rubra – Profunda ** Miliaria Pustulosa = 2ry infection
TTT	Cold compresses – Bathing - Ventilation

DLE	
Etiology	Auto-immune
Sites	Scalp – Butterfly area of face – V-area of neck – dorsa of hands
Scar	Thin atrophic non-contractile healthy stippled scar
D.D.	1- Lupus Vulgaris: thick contractile unhealthy scar Psoriasis: No scar – Palm affection
TTT	1- Local: sun screens – Steroids 2- Systemic: Antimalarials

Psoriasis	
cause	Trauma , infection , drugs (Lithium)
1ry Lesion	Well defined eryth. Papules , plaques covered by silvery laminated scales
Diagnosis	Grattage test → Auspitz sign
TTT	--Topical : 1.emollient 2.Keratolytics 3.Anthralin 4.Topical Steroids --Phototherapy : UVB --Photochemotherapy : PUVA --Systemic : If → generalized , extensive plaque , psychological distress 1.Etretinate 2.Cyclosporin A 3. PUVA 4.TNFIs

Pityriasis Rosea	
Cause	UK = Unknown (mostly viral)
1ry Lesion	Herald patch
TTT	1.Reassurance 2.Avoid irritants 3.Calamine lotion 4.Steroids

Lichen Planus	
C.A.	UK (HCV or autoimm.)
1ry Lesion	Itchy flat topped Violaceous <u>papule</u> Showing wickham's striae (whitish straition)
TTT	* Topical steroids , sun screen * Systemis : Antihist. – Steroids (anti malarial for Actinic lichen planus) (intra lesional steroids for hypertrophic lichen planus)

Alopecia Areata	
CCC.	Sudden – Circumscribed – Completely normal scalp e no crusts or scales – Complete loss e no roots or stumps
Types	* Patchy (M/C) → Single or multiple * Totalis → Whole Scalp * Universalis → Whole Body
TTT	<u>1- Topical:</u> * Local irritant (tincture iodine) * Contact allergens (DNCEB) * Steroids (+/- intra lesional) * Phototherapy (UVB – PUVA) <u>2- Systemic:</u> Steroids

Vitiligo	
Etiology	Autoimm. – F.H. +ve – melanocyte self destruction theory
Lesion	Macule/Patch → Well defined, milky or chalk white (Depigmented)
D.D.	P. Alba - P. versicolor – T.T – Albiminism
TTT	<u>1- Topical:</u> Steroids – PUVA <u>2- Systemic:</u> Steroids – Immunoupp. <u>3- Phototherapy:</u> PUVA – UVB <u>4- Surgical:</u> Micropigmentation

Melasma (Cholasma)	
Causes	Ass. e : pregnancy – OCP – Cancer ovary
Lesion	Well demarced hyperpigmented macule
D.D.	Actinic lichen planus Post inflammatory hyperpigmentation
TTT	• Stop OCPs – Sun screens • Azaleic acid • Chemical peeling